SCRIBNER'S MAGAZINE.

VOL. VI. AUGUST, 1889. No. 2.

FORM IN LAWN TENNIS.

By James Dwight, M.D.

IT is some fourteen years since the game of Lawn Tennis made its appearance. It was invented, or at least put into a practical shape, by Major Wingfield. Many people before his time had stretched a cord between two trees and hit a ball back and forth over it, using rackets, battledores, or whatever other implements chance threw in their way. This, however, we can hardly call Lawn Tennis.

When the game was first introduced it fell into the hands of racket players, as the court-tennis player looked on it with too much contempt to take an interest in it. The result was that the new game was moulded as far as possible on racket. That game has fifteen aces and the server only could score. When the striker-out won a stroke he became the server. The rackets and balls were both very light, and the net was enormously high—about five feet at the posts and four feet six in the middle.

After a time a change came over the scene; the net was lowered, and the rackets and balls were made heavier. Of course, with these changes came harder hitting and faster play. The racket method of scoring was given up, and the present system, taken from court tennis, was adopted.

All this time the game was growing more popular, and the number of players was increasing. Everyone, however, had a style of his own. The racket players used a racket stroke, with a long swing of the arm, and with the shoulder-joint free. The tennis players, on the other hand, used the cut, and held the elbow bent and the head of the racket above the wrist. In other words, every player was a law to himself and to himself only.

To a certain extent this state of things exists to-day. As we have seen, the game has no history. Lawn Tennis has not, like court tennis, passed through many generations of players until all its principles have been studied out. Even to-day every Lawn-Tennis player has his own ideas of the proper way to play a stroke. Some, indeed, seem to have no ideas on the subject whatever, and to regard the whole matter as of no importance. There can, however, be no doubt of the great importance of good form. No one must suppose that I hope or wish to see all players using exactly the same style. That is not possible. Every man has his own style, more or less marked. Training will modify it to a certain extent, but it can never make any two players exactly alike. But with all this variety of style the better players always observe certain principles of form.

At the risk of being personal I shall give two or three examples of the best players of the day.

The best form that I have ever seen is that of Mr. W. Renshaw. He plays every ball so easily, and with so little apparent exertion, that he always has

Copyright, 1889, by Charles Scribner's Sons. All rights reserved.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

his feet under him. His style is purely natural, and appears in every different stroke. With him comes his brother, Mr. Ernest Renshaw, the present champion. The two brothers are very much alike in build and appearance, and many people may think in style too, and yet I feel sure that I could tell which was playing by watching two or three strokes. Ernest takes the ball lower than his brother, in the ordinary stroke off the ground. In the volley, too, he allows the ball to drop more before he hits it than his brother would. In this way, to my mind, he loses something both of certainty and severity in the volley, while in the ground-stroke he perhaps gains a little. With both the Renshaws the form is so good that criticism by an inferior player seems rather out of place.

Now let us take Mr. Lawford, who has been in the foremost rank of players for many years. His style is in direct contrast to that of the Renshaws, for it is labored, and purely the result of study. He may be said to play but four strokes, but he plays them curiously well. He puts both feet firmly on the ground and fixes himself completely. He takes the ball at the very top of its bound, striking with all his force. His racket is vertical, and is lifted as he strikes, giving a strong over-twist to the ball. The back foot, too, is lifted as the stroke is made, and the whole weight of the body is thrown on to the ball. The elbow and wrist are held perfectly stiff, and the stroke seems to be made almost as much by the forward motion of the body as by the arm.

The backhand stroke is made on the same principle, but not quite so well. The two other strokes are the fore- and back-handed smashes, made exactly like the ground-strokes with the racket the other end up.

The style is awkward and uncouth almost beyond conception, but no one who has not played against him can appreciate the suddenness, the accuracy, and the terrible speed of his strokes.

The weakness of Lawford's game is that he requires time to fix himself for his stroke, and if got on the run is at a greater disadvantage than another player would be.

It is certainly a wonderful example of what patience and hard work can achieve even when there is no natural facility for the game.

Another curious instance is Mr. W. J. Hamilton, the best Irish player. I have not seen him for the last two years, and he may have changed; but at that time he used to take every ball forehanded. He is very quick on his feet, and possessed of endless endurance, so that he can run round a ball and play it forehanded. It was wonderful how well he succeeded; but at the same time it is not good tennis, and there is no reason why the backhanded stroke should not be as strong as the forehanded.

Here are two of the best players who differ entirely from each other and from the Renshaws in style. The contrast between Lawford and Hamilton is very great, as Lawford, a heavy man, moves at a disadvantage, especially on a soft ground, and plays all his best strokes standing still. Hamilton, on the other hand, is always on the run, and seems to prefer to make his strokes while moving. These differences come from the different build and characters of the men, and they could never be made to play alike by any amount of preaching about good form.

Again, when I used to play at Cannes the courts were very hard and the ball bounded very high. The result was that most of us took the ball at the top of its bound with a horizontal racket, something as in court tennis.

In Ireland the courts are apt to be wet, and of course the ball rises very little. Almost all the best Irish players take the ball very low, with the racket perfectly vertical, and with a good deal of swing. Here again are two opposite styles, but one cannot say that either is wrong. Both strokes may be played in good or bad form, as the case may be.

Good form, then, cannot do away with individual peculiarities, nor with the conditions of the ground; and it is not intended that it should. Its object is to teach one how to play any ball to the greatest advantage under the circumstances.

In what, then, does good form consist, and how can it be acquired?

Form is the style in which the player

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

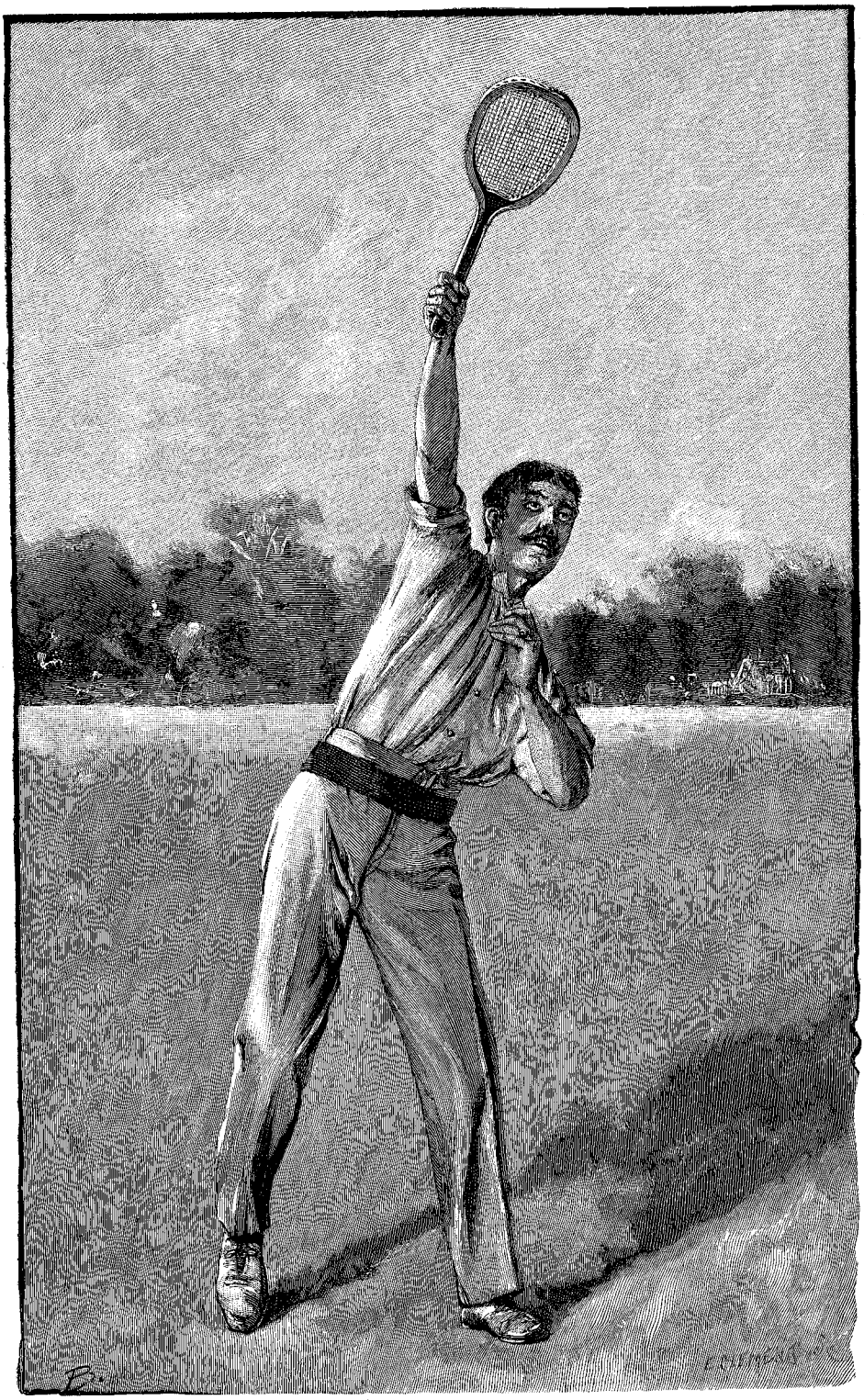


Figure 1.—The Smash.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

moves, carries himself, and makes the strokes. Good form, I should explain, is not grace; it is making the stroke in such a way as to produce the greatest effect with least friction. In making a stroke both feet seldom remain on the ground, and any violent effort will destroy the balance of the body, and thus make the stroke more uncertain, and the recovery slower and more difficult. This preservation of the balance, to me, seems the most important advantage of good form. You can often make a single stroke well enough in bad form, but you place yourself at such a disadvantage in the recovery that you must injure your chances for the next stroke.

It seems clear, then, that good form is worth having; that it can do no harm, and may do much good; but how is it to be acquired? By watching the best players, if possible, and studying out the position of the feet and body in making the different strokes. Also by the direct teaching of some player who has a good style himself, or at least knows thoroughly what it consists in.

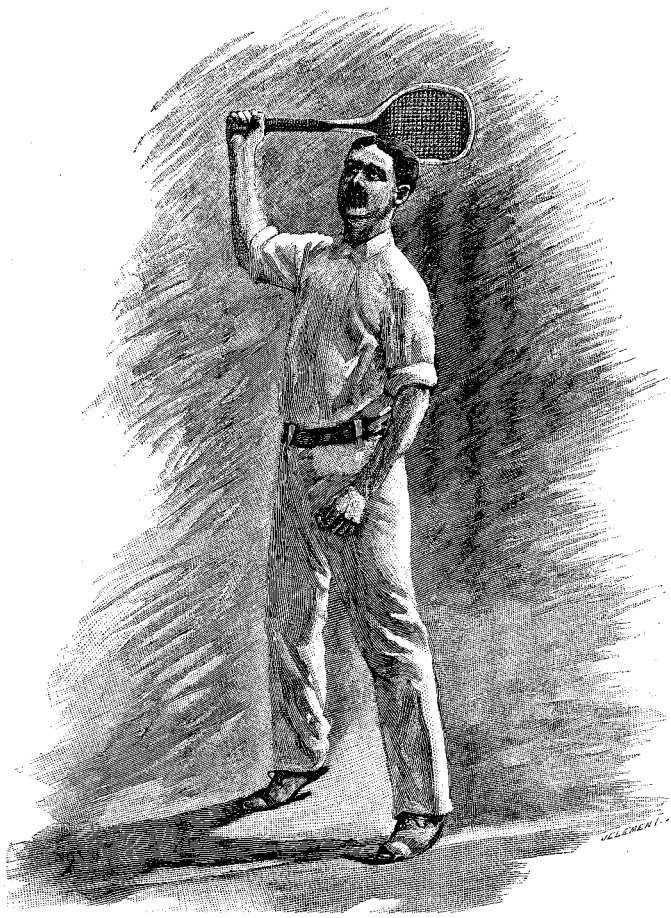


Fig. 2.—Forehanded Service.

"But," it has often been said to me, "we live where there are no good players; we see no good play; we have to trust to books for instruction, and books cannot show how a player looks when he makes a stroke." All this is true, and I could think of no answer to it until the idea occurred to me that a number of instantaneous photographs of the best players might be taken, so that the exact position of the feet and hands might

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

be decided. A strong reason for photographing the stroke is to be sure that you know how it is made. I remember well that I used always to preach that in the overhand service the racket should go very little back of the head. Two photographs taken at different times show the head of the racket almost touching the small of my back.

Before taking the pictures separately let us see what points they have in common:

First, in every one of them the weight of the body is on the forward foot, *i.e.*, on the right foot in a backhanded stroke, and on the left in a forehanded one. The reason is simple: by leaning forward toward the ball the weight is thrown forward onto the stroke. In this way a very severe stroke can be made with little exertion, and thus the balance of the body is not disturbed. Moreover, the less violent the exertion the easier it is to hit the ball in exactly the right way.

How often you see a duffer slamming at a ball with all his strength, and yet the ball does not travel very fast. Look again and you will see the reason; his weight is not on the ball, his legs and arms are flying in all directions, and the stroke is made by the arm alone. It is needless to say that the ball seldom goes to the right spot.

Mr. Sears is quoted as saying that the way to play Lawn Tennis is to keep your eyes on the ball and your feet on the ground. I do not know if he ever said anything of the kind, but the advice is very good, except that the back foot is almost always raised at the end of the stroke.

Of course if you step forward with one foot and raise the other, as well as throw the weight forward, the back foot must come down onto the ground in front of the other, or else you must fall down. Here it is that the principle of the balance comes in. If the step is a short one and is quietly made the whole motion is easy, the back foot comes forward at the end of the stroke and leaves the player resting firmly on both feet, and ready to start in any direction. If, on the other hand, he makes a stride, especially if he does it in a hurry, the impetus forward is so great that it is very hard to stop, even when the back foot has come forward. For this reason do not stop at a distance from the ball, and then make one long stride in order to reach it, because, if you do, your recovery will be very difficult although the stroke itself may be all right.

Again, it is better never to stand absolutely still, but to keep just moving, because it is then easier to start quickly. On the same principle the knees should always be a little bent, the head and body thrown a little forward, and the weight divided evenly between the two feet. It is perhaps as well to give the reasons for these points, although they are very simple. If the knees are stiff it takes a perceptible time to bend them and to start. If the weight is thrown

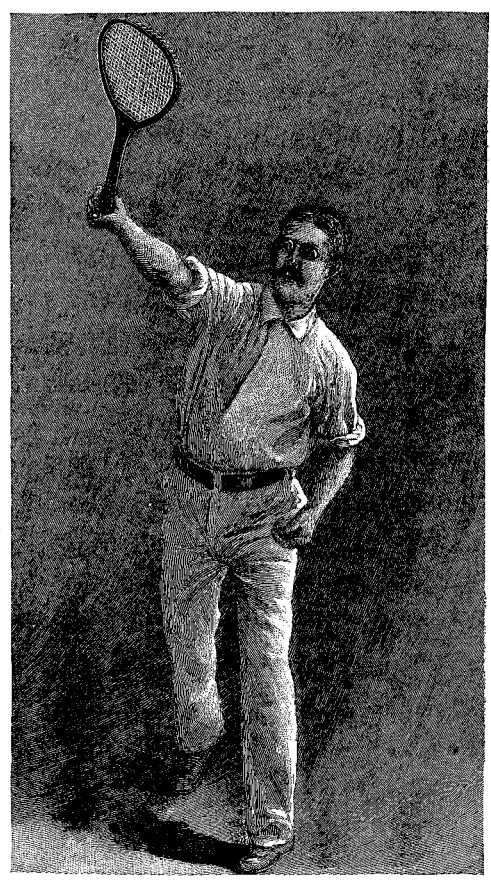


Fig. 3.—Reverse Overhand Service.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

altogether onto one foot you can move quickly to one side only, and not to the other. By bending the body a little forward you make it easier to start quickly, although I can hardly say why. Should any one doubt the assertion let him stand with his body bent a little back and he will find that he must bend it forward before he can move. As a matter of fact it is practically impossible to bend the knees and not lean forward at the same time.

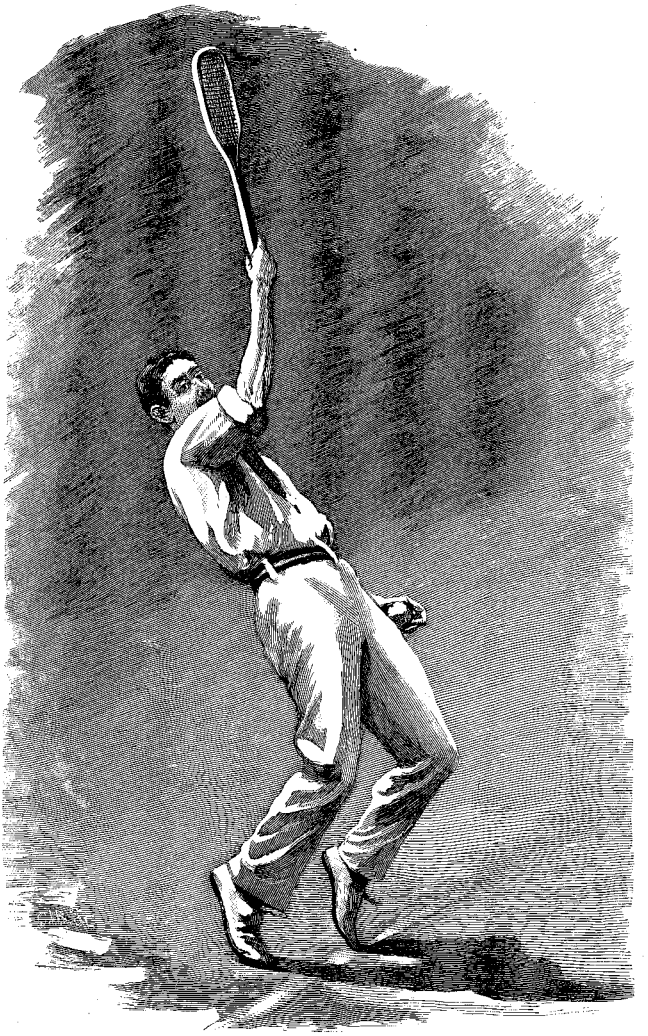


Fig. 4.—End of Underhand Twist Service.

The main points, then, are: When waiting—to stand with the feet a little apart, and with the weight divided between them, the knees bent, the body and head thrown forward, and to never stand quite still.

When moving—to start early, to take moderate steps, and not long strides.

When striking—to strike quietly with the weight thrown forward onto the ball. Never flourish the racket beforehand. The stroke, of course, requires a certain swing of the racket backward before it comes forward onto the ball. As a rule, however, it is very good players only who do not swing it too much. It is needless to say that a great swing interferes with the accuracy of the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

stroke, and more than that, the swing often takes valuable time. How often you see a player lose a stroke because he gives a swing to his racket and cannot bring it forward again under the ball until too late. If he had only held his racket in front of the ball the stroke might have been saved. It requires almost no force to return a ball if the weight is only thrown forward.

This brings me (as it were by accident) to another point on which I always dwell. Don't try to do too much with the ball, especially off the ground. If you have a very difficult stroke to play, play it all the more quietly because it is difficult. I know that this is very hard to do, but if the idea is once caught so that really you believe in the principle and have succeeded once or twice in the stroke, you will find that it will make all the difference in the world.

I see myself in the tennis court doing all these things of which I am preaching, in the wrong way. When there is but just time to take the ball off the wall, my racket is swinging back instead of waiting almost still for the stroke. When the stroke is a very difficult one I try to hit it; Pettitt, with whom I usually play, only puts his racket in the way, yet his ball travels twice as fast as mine. In Lawn Tennis, too, in the championship round in England, I saw Lawford drive a ball quite past W. Renshaw, so that it seemed hopeless. He ran after it, passed it, and with his back still to the net quietly dropped his racket in front of the ball with a little snap of the wrist. The ball went back exactly right, but any ordinary player would have slammed at such a ball with all his strength, and it would never have gone over the net. In one word, then, do not swing the racket backward more than is absolutely necessary, and the more difficult the stroke the less should be the swing.

On the other hand, the swing of the racket forward, after the stroke, is of very great importance. It is impossible to make an effective stroke unless the racket is "carried through," as the tennis expression is. This means that the racket must not be suddenly checked as soon as it has struck the ball. I suppose the reason is that it is impossible to check the racket suddenly after it has met the ball, without checking it a little before it has met it; and that would certainly spoil any stroke. Nor do I believe that the racket can be stopped if the weight be thrown fairly onto the ball. Therefore, for one reason or the other, you must carry the racket through its full swing, and at the end of the stroke it should come up into the left hand, so that you have it in both hands ready for whatever may happen.

We now come to the discussion of the

Fig. 5.—Forehand Stroke.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

different strokes, in order to show how the principles of good form apply in each case. As I have said, it seemed to me that there could be no better way of doing this than by taking a number of instantaneous photographs of some player who could make the strokes as they ought to be made. My principal model was Mr. R. D. Sears, the late champion, assisted by his brother, Mr. P. S. Sears, and by Thomas Pettitt, the professional tennis champion. I myself stood several times for particular strokes, in one or two cases where I could get no one else. Thus the pictures represent actual strokes, not imaginary ones, [though no attempt has been made to preserve the resemblance to the faces of the originals.] The method employed was as follows: Pettitt hit the ball over the net to a certain spot on which the cameras were focused and at which the player met it and made the stroke. If the ball was not hit with sufficient accuracy the stroke was not attempted, and the ball was hit again and again until the right moment, when a picture was taken. In this way we got an exact image of the player at some part of the stroke. The ball was caught in one or two pictures only, and the racket was faint in a great many, but could always be traced and its position determined. In all, some seventy or eighty pictures were taken, of which only a few of the more important are given. Many of the others, although unsatisfactory as photographs, are valuable, as each one showed a different part of the stroke, and one camera gave a view more from the side than the other. I can thus speak of the position in nearly every part of each stroke with practical certainty, although but one part is given here.

Fig. 6.—End of a Backhand Stroke, off the ground.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Let us take first the overhand service. The object of the server is to get the ball into play with as great advantage

tage?" Yes, because if you serve with any judgment, and vary the place of your service, the faster the service the

Fig. 7.—The Cut.

to himself as possible. Among good players the service does not score very often, but if it is severe the server will probably have a chance to score in a stroke or two. Speed is the main point of the service, because a fast service is very difficult to return to exactly the right spot and the striker-out is usually afraid to try to place the return very close to the side line.

The next point is to place the service. Should the striker-out be able to judge to just what spot the service is coming he can make a very severe return, and the faster the service the more severe will be the return if well made. It may be asked, "Is speed, then, an advan-

less time your adversary will have to place himself for it; and unless he should do so the speed will be of great advantage.

The twist remains to be considered. A service can be given with no twist, or with a great deal. If no twist is desired the ball should be struck fairly with the face of the racket. On the other hand, to put on twist the racket must pass around the ball on one side or the other, instead of striking it fairly in the middle. The advantage of the twist is that the ball "breaks" to one side after striking the ground, and thus makes it more difficult for the striker-out to make a clean return. The disad-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

vantage of the twist is that a certain amount of speed must be lost. Most players serve with little or no twist, and try mainly for speed.

There is nothing new in what I have been saying, but it seemed to me necessary to call attention to these three points—speed, placing, and twist—before we took up the technique.

Forehanded Service.—To deliver the forehanded service place the toe of the left foot on the base line, and the right foot about two feet behind it and turned outward. As the ball is thrown up, the weight of the body is put onto the right foot in order to get a support behind, so that all the weight may be brought forward onto the ball at the instant that it is struck. At the same time that the weight is thrown back the upper arm forms a right angle to the body and also to the forearm. [Fig. 2, p. 134.]

The ball should be thrown up beside the head—possibly a little in front of it, but certainly not much. It should be struck at the instant when it pauses before descending, and it must be thrown to such a height that, with the arm fully extended, the racket shall come a little on top of the ball. While the ball is in the air the weight of the body is brought forward, so that the racket shall meet the ball at the time when the swing is the greatest. The arm is straightened just before the ball is struck, and is held stiff throughout the rest of the stroke, except that the wrist is bent sharply forward at the moment of striking.

Fig. 8.—Forehand Volley.

racket is lifted and allowed to swing down behind the middle of the back. Some of the photographs of the earlier part of the service show the head of the racket hanging down between the shoulders, and others show it behind the left shoulder; they show, too, that the arm is not straightened, but that

This, to my mind, is the best method of serving, though I do not use it. I always stand about four feet behind the base line, and take a very short step with the right foot, and then a long one with the left, serving as the left foot comes to the ground. Much greater power can be got in this way, but it is

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

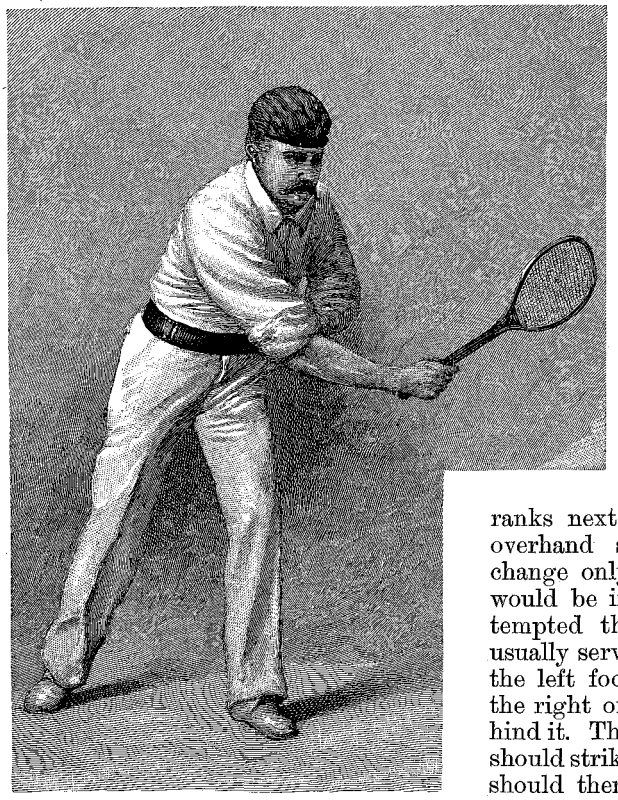


Fig. 9.—Backhand Volley.

very difficult to step exactly onto the base line, and I have many foot-faults called on me. Nothing puts a player off his service as much as a foot-fault, and for that reason it is better to stand with one foot on the line.

Players differ about the place to which the ball should be thrown. Mr. Sears, for instance, serves very much in front of his face; I always throw the ball well to one side. My reason for preferring the side is this: If one can serve the overhand service, either forehanded or backhanded, and throws the ball to the side, he can always keep the sun out of his eyes. If he throws the ball in front of his face he does not have the same chance.

The Reverse Overhand Service.—The reverse service is served in exactly the same manner as the forehanded, except that the ball is thrown a little to the left of the head and farther forward than in the forehanded service. The racket passes in front of the face and round the ball from right to left. The step forward can be made with either foot, but for myself I should always choose the right. In this service one trusts more to twist than to speed. The reason is simple. It is a hard service to give very fast, and is therefore unlikely to be of value on account of its speed. Its twist, however, is an unusual one, and is therefore important. The picture given shows the service just after the ball has left the racket. [Fig. 3, p. 135.]

The Underhand Twist Service. — This service ranks next in importance to the two overhand services. It is used as a change only, or in cases where the sun would be in the player's eyes if he attempted the overhand service. It is usually served by stepping forward with the left foot. The ball is dropped to the right of the left foot and a little behind it. The racket is held vertically, and should strike the ball almost behind, and should then pass round it to the left, which will, of course, impart a strong twist to the right. The head of the racket comes up a little at the end of the stroke. The weight of the body is on both feet, as the step taken is a short one, and the exertion not very great. We have on page 136 [Fig. 4] a picture of Mr. R. D. Sears delivering this service, but in quite a different way. He puts his right foot forward, takes a very short step with the left, and serves with his racket slanting very much forward; in fact it seems to be almost parallel with the ground at the time when the ball is struck. If the head of the racket is so far forward to start with, it must come much higher into the air at the end of the stroke than if the service were given in the way described before. He gets a great deal of twist on the ball, but he is so completely fixed at the end of the service that he loses time in starting for the next ball. It is only fair to add that Mr. Ernest Renshaw serves the underhand twist in the same way; but with these two exceptions every good player whom I know serves it in the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

way first described. Exceptional skill or agility may make up for the disadvantage under which Mr. Renshaw and Mr. Sears put themselves, but that does not make their service a right one to copy.

The reverse service is the same, except that the step is made with the right foot, and the racket passes round the right side of the ball so that it shall twist to the left.

THE STROKE.—After getting the ball into play by the service, the next thing to do is to return it over the net off the ground. As has been said before, there are practically only two different ways of making the return; one with the racket vertical, the other with it horizontal; the latter is a modification of the tennis stroke or cut, the former is a stroke which Lawn Tennis has produced, and might well be called the Lawn Tennis Stroke. Let us take it first: The ball is allowed to drop very low and the player steps forward to meet it with the left foot in the forehanded stroke. The ball is taken near the ground, with the racket, as before stated, nearly vertical. There should be little or no swing of the racket backward, but it should be held at a little distance from the ball, and then quietly brought forward to make the stroke. As the racket meets the ball it should be lifted so that the ball seems to go off the lower end of the racket. This motion gives an overtwist forward to the ball, and in this twist lies the essential part of the stroke. The ball is, so to speak, lifted by the racket, so that it has every chance to get over the net; and, on the other hand, as soon as the force of the stroke is over, the twist tends to bring the ball sharply downward. It is easy to see that one can hit harder by using this stroke without hitting out of court. Moreover, such a stroke is very difficult to volley well, because the ball shoots downward after passing the net, and must therefore be volleyed upward to be returned. [Fig. 5, p. 137.]

The horizontal stroke is in many ways the exact opposite of the vertical one. The ball is taken very high, at the top of its bound, if possible, and is played in a direct line to the spot at which it is aimed. If the ball does not rise high enough to do this the stroke must be made more slowly, because there is no forward twist to bring the ball down. Such a stroke is best made with the cut, which will be dealt with later. It is sufficient to say here that a cut ball rises, and the stroke must therefore be played still more slowly than would be necessary if the ball were hit perfectly straight.

BACKHAND STROKE.—Fig. 6 [p. 138] shows Mr. P. S. Sears, the intercollegiate champion, at the end of a backhand stroke off the ground. The stroke was made fast, and the racket has swung completely across to his right side. My criticism of the position would be that he has not thrown his weight enough forward, and is now in no position to start quickly. The backhand stroke should be made in the same manner as the forehand, except that the right foot should cross the left a little in the step forward.

THE CUT.—The cut is properly a tennis stroke, not a Lawn Tennis one. The racket is held at an angle, or "open," to use a tennis expression. Fig. 7 [p. 139] shows Pettitt, the professional tennis champion, in position for the stroke. The racket is brought forward against the ball so as to meet it almost directly in its line of flight. As the racket is open, a heavy back twist is imparted to the ball, which causes it to rise in its flight. This forms the greatest objection to the use of this stroke in Lawn Tennis. After hitting the ground, the cut ball keeps low, but this is not a sufficient advantage to make up for loss of speed. The only place to use the stroke is when the ball has struck far forward in the court and has bounded high, but not high enough to be smashed. It can then be cut down with great ease, and will then rise very little. The player should turn his face a little away from the net, and take the ball a little behind him. He should always stoop to meet the ball, and after striking he must carry the racket through the stroke or else he will get no speed, and will only put on back twist and not pure cut.

FOREHAND VOLLEY.—Fig. 8 [p. 140] shows the forehand volley, one of the most difficult strokes that there is. The ball may, of course, come at any height, but the volley to which I refer is one

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

between the shoulder and waist. You should take a good step forward with the left foot in order to throw the weight well onto the ball. The stroke resembles the cut in the manner in which it is made, except that the racket should not be so much open, but should meet the ball fairly. The elbow is bent, and

net; but to place it and to play it fast without hitting out of court is a very different matter. There is little use in playing the stroke slowly over the middle of the net; that may have been good enough once, but the game is played too well for it now. I have selected the backhand half-volley as a better example

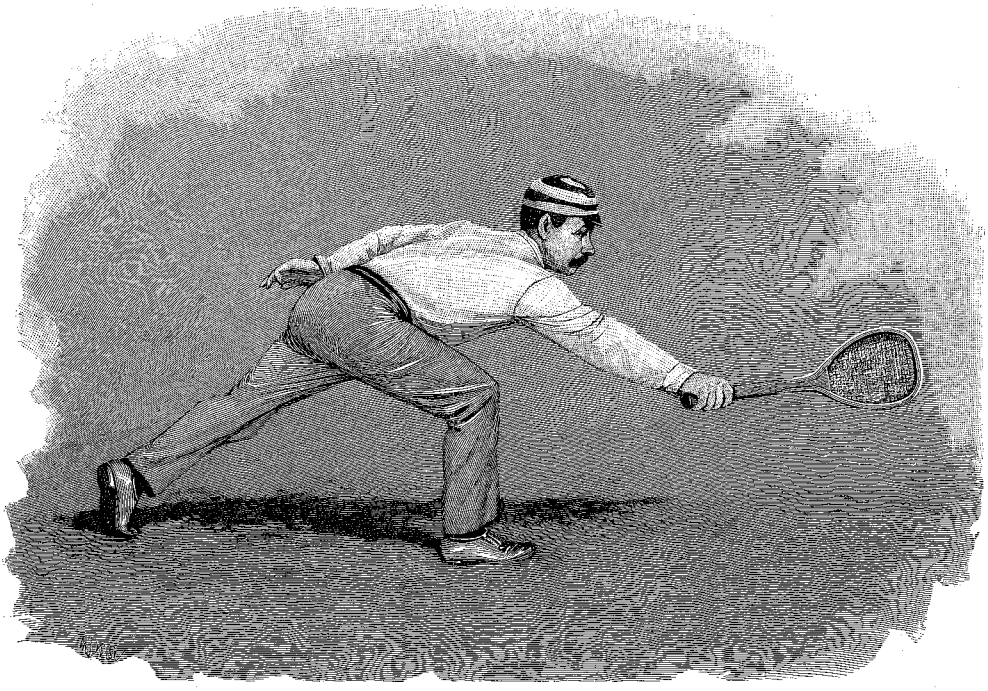


Fig. 10.—Backhand Half-volley.

the head of the racket is held higher than the wrist. It is a stroke in which the wrist plays a very important part; in fact the sharpness of the stroke comes entirely from bending the wrist as the ball is struck. The plate is, unfortunately, taken a little late, and only the end of the stroke is shown.

Backhand Volley.—This stroke is as easy as the forehand volley is difficult. The stroke is made mainly by the forearm, though the wrist is bent a little to bring the head of the racket more sharply onto the ball. The step is taken with the right foot. Fig. 9 [p. 141] shows the position very well.

Backhand Half-Volley.—The half-volley is always a difficult stroke to play well. It is easy enough for any one with a good eye to get the ball back over the

of the stroke than the forehand, and it is also the more difficult.

The stroke is sometimes played close to the feet, but such a ball can either be volleyed by a step forward, or played off the ground by falling back a little. It is therefore usually necessary to take a long step to reach the ball. Fig. 10, above, shows exactly my idea of the stroke. I grant that the picture is not æsthetically a pretty one, but it shows the step across the left foot, and sometimes even a little backward, as well as the manner in which the weight is put on the ball.

It is important to remember that the racket should not come down on the ball with a chop, but should be brought forward from behind, almost along the ground, to meet it.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE HALF-VOLLEY BACKWARD.—Fig. 11, below shows a stroke which, though rare, is occasionally very useful. It is used mainly in returning a smash. I well remember a case of it at Cannes. W. Renshaw and I were playing against Grove and Farrer, and Renshaw smashed the ball very hard into the back part of the court. Farrer turned his back and dropped his racket in front of the ball. The ball came back into our court and won the set. Of course one does not turn his back on the ball from choice, but because there are certain balls which can be reached more easily in that way. If the ball comes a little to your left, instead of trying the ordinary backhand half-volley, for which it is a little too near, swing round on the left foot, stepping across and backward with the right until your back is toward the net. Take the ball beside the right foot with a perfectly vertical racket, and make the stroke almost entirely with the wrist.

Fig. 11.—Half-volley, Backward.

THE SMASH.—What is a smash? A very hard volley or something more? You will find that most players will disagree. To my mind a smash is a "slam" of the ball downward. It may be a volley, or the ball may simply have bounded very high. The essential point, to my thinking, is that no attempt is made to control or guide the racket after the stroke is once started. One hits as hard as he can and lets the racket go. It would be out of place here to discuss the value of the stroke. It is made both forehanded and backhanded, and is exactly like the overhand service if served without twist, except that one naturally does not smash a ball which is six feet off the ground at the base line. One seldom smashes back of the service line, and therefore the racket must be brought down more on top of the ball than in the service. [Fig. 1, p. 133.]

In offering these photographs, and these suggestions about form, I need hardly say that I feel that they do not cover the whole subject. They are intended as the first step only in a study of the game made from photography.

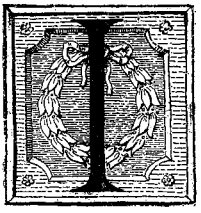
PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE MASTER OF BALLANTRAE.

By Robert Louis Stevenson.

X.

PASSAGES AT NEW YORK.



HAVE mentioned I was resolved to steal a march upon the Master; and this, with the complicity of Captain McMurtrie, was mighty easily effected: a boat being partly loaded on the one side of our ship and the Master placed on board of it, the while a skiff put off from the other carrying me alone. I had no more trouble in finding a direction to my lord's house, whither I went at top speed, and which I found to be on the outskirts of the place, a very suitable mansion, in a fine garden, with an extraordinary large barn, byre, and stable all in one. It was here my lord was walking when I arrived; indeed it had become his chief place of frequentation, and his mind was now filled with farming. I burst in upon him breathless, and gave him my news: which was indeed no news at all, several ships having outsailed the Nonesuch in the interval.

"We have been expecting you long," said my lord; "and indeed, of late days, ceased to expect you any more. I am glad to take your hand again, Mackellar. I thought you had been at the bottom of the sea."

"Ah, my lord, would God I had!" cried I. "Things would have been better for yourself."

"Not in the least," says he grimly. "I could not ask better. There is a long score to pay, and now—at last—I can begin to pay it."

I cried out against his security.

"Oh," says he, "this is not Durrisdeer, and I have taken my precautions. His reputation awaits him, I have prepared a welcome for my brother. Indeed fortune has served me; for I found here a merchant of Albany who knew him after the '45 and had mighty convenient suspicions of a murder: some one of the name of Chew it was, another Albanian. No one here will be surprised if I deny him my door; he will not be suffered to address my children, nor even to salute my wife: as for myself, I make so much exception for a brother that he may speak to me. I should lose my pleasure else," says my lord, rubbing his palms.

Presently he bethought himself, and set men off running, with billets, to summon the magnates of the province. I cannot recall what pretext he employed; at least it was successful; and when our ancient enemy appeared upon the scene, he found my lord pacing in front of his house under some trees of shade, with the governor upon one hand and various notables upon the other. My lady, who was seated in the verandah, rose with a very pinched expression and carried her children into the house.

The Master, well dressed and with an elegant walking-sword, bowed to the company in a handsome manner and nodded to my lord with familiarity. My lord did not accept the salutation, but looked upon his brother with bended brows.

"Well, sir," says he, at last, "what ill wind brings you hither of all places, where (to our common disgrace) your reputation has preceded you?"

"Your lordship is pleased to be civil," cries the Master, with a fine start.

"I am pleased to be very plain," returned my lord. "Because it is needful you should very clearly understand your situation. At home, where you were so little known, it was still possible to keep up appearances: that would be quite vain in this province; and I have to tell you that I am quite resolved to wash my hands of you. You have already ruined me almost to the door, as you ruined my father before me;—whose heart you also broke. Your crimes escaped the law; but my friend

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the governor has promised protection to my family. Have a care, sir!" cries my lord, shaking his cane at him: "if you are observed to utter two words to any of my innocent household, the law shall be stretched to make you smart for it."

"Ah!" says the Master, very slowly, "and so this is the advantage of a foreign land! These gentlemen are unacquainted with our story, I perceive. They do not know that I am the Lord Durrisdeer; they do not know you are my younger brother, sitting in my place under a sworn family compact; they do not know (or they would not be seen with you in familiar correspondence) that every acre is mine before God Almighty—and every doit of the money you withhold from me, you do it as a thief, a perjurer, and a disloyal brother!"

"Ah, Governor Colden," I cried, "do not listen to his lies. I am the steward of the estate, and there is not one word of truth in it. The man is a forfeited rebel turned into a hired spy: there is his story in two words."

It was thus that (in the heat of the moment) I let slip his infamy.

"Fellow," said the governor, turning his face sternly on the Master, "I know more of you than you think for. We have some broken ends of your adventures in the provinces, which you will do very well not to drive me to investigate. There is the disappearance of Mr. Jacob Chew with all his merchandise; there is the matter of where you came ashore from with so much money and jewels, when you were picked up by a Bermudan out of Albany. Believe me, if I let these matters lie, it is in commiseration for your family and out of respect for my valued friend, Lord Durrisdeer."

There was a murmur of applause from the provincials.

"I should have remembered how a title would shine out in such a hole as this," says the Master, white as a sheet; "no matter how unjustly come by. It remains for me then to die at my lord's door, where my dead body will form a very cheerful ornament."

"Away with your childish affectations!" cries my lord. "You know very well I have no such meaning, only to protect myself from calumny and my home from your intrusion. I offer you a choice. Either I shall pay your passage home on the first ship, when you may perhaps be able to resume your occupations under government, although God knows I would rather see you on the highway! Or, if that likes you not, stay here and welcome! I have inquired the least sum on which body and soul can be decently kept together in New York; so much you shall have, paid weekly; and if you cannot labor with your hands to better it, high time you should betake yourself to learn! The condition is, that you speak with no member of my family except myself," he added.

I do not think I have ever seen any man so pale as was the Master; but he was erect and his mouth firm.

"I have been met here with some very unmerited insults," said he, "from which I have certainly no idea to take refuge by flight. Give me your pittance; I take it without shame, for it is mine already—like the shirt upon your back; and I choose to stay until these gentlemen shall understand me better. Already they must spy the cloven hoof; since with all your pretended eagerness for the family honor, you take a pleasure to degrade it in my person."

"This is all very fine," says my lord; "but to us who know you of old, you must be sure it signifies nothing. You take that alternative out of which you think that you can make the most. Take it, if you can, in silence: it will serve you better in the long run, you may believe me, than this ostentation of ingratitude."

"Oh, gratitude, my lord!" cries the Master, with a mounting intonation and his forefinger very conspicuously lifted up. "Be at rest: it will not fail you. It now remains that I shall salute these gentlemen whom we have wearied with our family affairs."

And he bowed to each in succession, settled his walking-sword, and took himself off, leaving everyone amazed at his behavior, and me not less so at my lord's.

We were now to enter on a changed phase of this family division. The Mas-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ter was by no manner of means so helpless as my lord supposed, having at his hand and entirely devoted to his service, an excellent artist in all sorts of goldsmith work. With my lord's allowance, which was not so scanty as he had described it, the pair could support life, and all the earnings of Secundra Dass might be laid upon one side for any future purpose. That this was done, I have no doubt. It was in all likelihood the Master's design to gather a sufficiency, and then proceed in quest of that treasure which he had buried long before among the mountains; to which, if he had confined himself, he would have been more happily inspired. But unfortunately for himself and all of us, he took counsel of his anger. The public disgrace of his arrival (which I sometimes wonder he could manage to survive) rankled in his bones; he was in that humor when a man (in the words of the old adage) will cut off his nose to spite his face; and he must make himself a public spectacle, in the hopes that some of the disgrace might spatter on my lord.

He chose, in a poor quarter of the town, a lonely small house of boards, overhung with some acacias. It was furnished in front with a sort of hutch-opening, like that of a dog's kennel, but about as high as a table from the ground, in which the poor man that built it had formerly displayed some wares; and it was this which took the Master's fancy and possibly suggested his proceedings. It appears, on board the pirate ship, he had acquired some quickness with the needle: enough at least to play the part of tailor in the public eye; which was all that was required by the nature of his vengeance. A placard was hung above the hutch, bearing these words in something of the following disposition:

JAMES DURIE
FORMERLY MASTER OF BALLANTRAE
CLOTHES NEATLY CLOUTED.

SECUNDRA DASS
DECAYED GENTLEMAN OF INDIA
FINE GOLDSMITH WORK.

Underneath this, when he had a job, my gentleman sat withinside tailor-wise and busily stitching. I say, when he had a job; but such customers as came were rather for Secundra, and the Master's sewing would be more in the manner of Penelope's. He could never have designed to gain even butter to his bread by such a means of livelihood: enough for him, that there was the name of Durie dragged in the dirt on the placard, and the sometime heir of that proud family set up cross-legged in public for a reproach upon his brother's meanness. And in so far his device succeeded, that there was murmuring in the town and a party formed highly inimical to my lord. My lord's favor with the governor laid him more open on the other side; my lady (who was never so well received in the colony) met with disagreeable innuendoes; in a party of women, where it would be the topic most natural to introduce, she was almost debarred from the naming of needlework; and I have seen her return with a flushed countenance and vow that she would go abroad no more.

In the meanwhile, my lord dwelled in his decent mansion, immersed in farming; a popular man with his intimates, and careless or unconscious of the rest. He laid on flesh; had a bright, busy face; even the heat seemed to prosper with him; and my lady (in despite of her own annoyances) daily blessed heaven her father should have left her such a paradise. She had looked on from a window upon the Master's humiliation; and from that hour appeared to feel at ease. I was not so sure myself; as time went on there seemed to me a something not quite wholesome in my lord's condition; happy he was, beyond a doubt, but the grounds of this felicity were secret; even in the bosom of his family he brooded with manifest delight upon some private thought; and I conceived at last the suspicion (quite unworthy of us both) that he kept a mistress somewhere in the town. Yet he went little abroad, and his day was very fully occupied; indeed there was but a single period, and that pretty early in the morning while Mr. Alexander was at his lesson book, of which I was not certain of the disposition. It

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

should be borne in mind, in the defence of that which I now did, that I was always in some fear my lord was not quite justly in his reason; and with our enemy sitting so still in the same town with us, I did well to be upon my guard. Accordingly I made a pretext, had the hour changed at which I taught Mr. Alexander the foundation of cyphering and the mathematic, and set myself instead to dog my master's footsteps.

Every morning, fair or foul, he took his gold-headed cane, set his hat on the back of his head—a recent habitude, which I thought to indicate a burning brow—and betook himself to make a certain circuit. At the first his way was among pleasant trees and beside a graveyard, where he would sit a while, if the day were fine, in meditation. Presently the path turned down to the water-side and came back along the harbor front and past the Master's booth. As he approached the second part of his circuit, my Lord Durrisdeer began to pace more leisurely, like a man delighted with the air and scene; and before the booth, half way between that and the water's edge, would pause a little leaning on his staff. It was the hour when the Master sate within upon his board and plied his needle. So these two brothers would gaze upon each other with hard faces; and then my lord move on again, smiling to himself.

It was but twice that I must stoop to that ungrateful necessity of playing spy. I was then certain of my lord's purpose in his rambles and of the secret source of his delight. Here was his mistress: it was hatred and not love that gave him healthful colors. Some moralists might have been relieved by the discovery, I confess that I was dismayed. I found this situation of two brethren not only odious in itself, but big with possibilities of further evil; and I made it my practice, in so far as many occupations would allow, to go by a shorter path and be secretly present at their meeting. Coming down one day a little late, after I had been near a week prevented, I was struck with surprise to find a new development. I should say there was a bench against the Master's house, where customers might sit to parley with the shopman; and here I found my lord seated, nursing his cane and looking pleasantly forth upon the bay. Not three feet from him sate the Master stitching. Neither spoke; nor (in this new situation) did my lord so much as cast a glance upon his enemy. He tasted his neighborhood, I must suppose, less indirectly in the bare proximity of person; and without doubt, drank deep of hateful pleasures.

He had no sooner come away than I openly joined him.

"My lord, my lord," said I, "this is no manner of behavior."

"I grow fat upon it," he replied; and not merely the words, which were strange enough, but the whole character of his expression shocked me.

"I warn you, my lord, against this indulgency of evil feeling," said I. "I know not to which it is more perilous, the soul or the reason; but you go the way to murder both."

"You cannot understand," said he. "You had never such mountains of bitterness upon your heart."

"And if it were no more," I added, "you will surely goad the man to some extremity."

"To the contrary: I am breaking his spirit," says my lord.

Every morning for hard upon a week, my lord took his same place upon the bench. It was a pleasant place, under the green acacias, with a sight upon the bay and shipping, and a sound (from some way off) of mariners singing at their employ. Here the two sate without speech or any external movement, beyond that of the needle or the Master biting off a thread, for he still clung to his pretence of industry; and here I made a point to join them, wondering at myself and my companions. If any of my lord's friends went by, he would hail them cheerfully, and cry out he was there to give some good advice to his brother, who was now (to his delight) grown quite industrious. And even this, the Master accepted with a steady countenance: what was in his mind God knows, or perhaps Satan only.

All of a sudden, on a still day of what they call the Indian Summer, when the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

woods were changed into gold, and pink, and scarlet, and the face of the harbor was like a mirror to the hills of fairy-land, the Master laid down his needle and burst into a fit of merriment. I think he must have been preparing it a long while in silence, for the note in itself was pretty naturally pitched; but breaking suddenly from so extreme a silence, and in circumstances so averse from mirth, it sounded ominously on my ear.

"Henry," said he, "I have for once made a false step, and for once you have had the wit to profit by it. The farce of the cobbler ends to-day; and I confess to you (with my compliments) that you have had the best of it. Blood will out; and you have certainly a choice idea of how to make yourself unpleasant."

Never a word said my lord; it was just as though the Master had not broken silence.

"Come," resumed the Master, "do not be sulky, it will spoil your attitude. You can now afford (believe me) to be a little gracious; for I have not merely a defeat to accept. I had meant to continue this performance till I had gathered enough money for a certain purpose; I confess, ingenuously, I have not the courage. You naturally desire my absence from this town; I have come round by another way to the same idea. And I have a proposition to make; or if your lordship prefers, a favor to ask."

"Ask it," says my lord.

"You may have heard that I had once in this country a considerable treasure," returned the Master: "it matters not whether or no—such is the fact; and I was obliged to bury it in a spot of which I have a chart and quite sufficient indications. To the recovery of this has my ambition now come down; and as it is my own, you will not grudge it me."

"Go and get it," says my lord. "I make no opposition."

"Yes," said the Master, "but to do so I must find men and carriage. The way is long and rough, and the country infested with wild Indians. Advance me only so much as shall be needful: either as a lump sum, in lieu of my allowance; or if you prefer it, as a loan, which I shall repay on my return. And then, if you so decide, you may have seen the last of me."

My lord stared him steadily in the eyes; there was a hard smile upon his face, but he uttered nothing.

"Henry," said the Master, with a formidable quietness, and drawing at the same time somewhat back—"Henry, I had the honor to address you."

"Let us be stepping homeward," says my lord to me, who was plucking at his sleeve; and with that he rose, stretched himself, settled his hat, and still without a syllable of response, began to walk steadily along the shore.

I hesitated awhile between the two brothers, so serious a climax did we seem to have reached. But the Master had resumed his occupation, his eyes lowered, his hand seemingly as deft as ever; and I decided to pursue my lord.

"Are you mad?" I cried, so soon as I had overtook him. "Would you cast away so fair an opportunity?"

"Is it possible you should still believe in him?" inquired my lord, almost with a sneer.

"I wish him forth of this town," I cried. "I wish him anywhere and anyhow but as he is."

"I have said my say," returned my lord, "and you have said yours. There let it rest."

But I was bent on dislodging the Master. That sight of him patiently returning to his needlework was more than my imagination could digest. There was never a man made, and the Master the least of any, that could accept so long a series of insults. The air smelt blood to me. And I vowed there should be no neglect of mine if, through any chink of possibility, crime could be yet turned aside. That same day, therefore, I came to my lord in his business room, where he sat upon some trivial occupation.

"My lord," said I, "I have found a suitable investment for my small economies. But these are unhappily in Scotland; it will take some time to lift them, and the affair presses. Could your lordship see his way to advance me the amount against my note?"

He read me awhile with keen eyes. "I have never inquired into the state of your affairs, Mackellar," says he. "Be-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

yond the amount of your caution, you may not be worth a farthing, for what I know."

"I have been a long while in your service, and never told a lie, nor yet asked a favor for myself," said I, "until to-day."

"A favor for the Master," he returned, quietly. "Do you take me for a fool, Mackellar? Understand it once and for all; I treat this beast in my own way; fear nor favor shall not move me; and before I am hoodwinked, it will require a trickster less transparent than yourself. I ask service, loyal service; not that you should make and mar behind my back, and steal my own money to defeat me."

"My lord," said I, "these are very unpardonable expressions."

"Think once more, Mackellar," he replied; "and you will see they fit the fact. It is your own subterfuge that is unpardonable. Deny, if you can that you designed this money to evade my orders with, and I will ask your pardon freely. If you cannot, you must have the resolution to hear your conduct go by its own name."

"If you think I had any design but to save you . . ." I began.

"Oh, my old friend," said he, "you know very well what I think! Here is my hand to you with all my heart; but of money, not one rap."

Defeated upon this side, I went straight to my room, wrote a letter, ran with it to the harbor, for I knew a ship was on the point of sailing, and came to the Master's door a little before dusk. Entering without the form of any knock, I found him sitting with his Indian at a simple meal of maize porridge with some milk. The house within was clean and poor; only a few books upon a shelf distinguished it, and (in one corner) Secundra's little bench.

"Mr. Bally," said I, "I have near five hundred pounds laid by in Scotland, the economies of a hard life. A letter goes by yon ship to have it lifted; have so much patience till the return ship comes in, and it is all yours, upon the same condition you offered to my lord this morning."

He rose from the table, came forward, took me by the shoulders, and looked me in the face, smiling.

"And yet you are very fond of money!" said he. "And yet you love money beyond all things else, except my brother."

"I fear old age and poverty," said I, "which is another matter."

"I will never quarrel for a name. Call it so!" he replied. "Ah, Mackellar, Mackellar, if this were done from any love to me, how gladly would I close upon your offer!"

"And yet," I eagerly answered—"I say it to my shame, but I cannot see you in this poor place without compunction. It is not my single thought, nor my first; and yet it's there! I would gladly see you delivered. I do not offer it in love, and far from that; but as God judges me—and I wonder at it too!—quite without enmity."

"Ah," says he, still holding my shoulders and now gently shaking me, "you think of me more than you suppose. 'And I wonder at it too,'" he added, repeating my expression and I suppose something of my voice. "You are an honest man, and for that cause I spare you."

"Spare me?" I cried.

"Spare you," he repeated, letting me go and turning away. And then, fronting me once more: "You little know what I would do with it, Mackellar! Did you think I had swallowed my defeat indeed? Listen, my life has been a series of unmerited cast-backs. That fool, Prince Charlie, mismanaged a most promising affair: there fell my first fortune. In Paris I had my foot once more high upon the ladder: that time it was an accident, a letter came to the wrong hand, and I was bare again. A third time, I found my opportunity; I built up a place for myself in India with an infinite patience; and then Clive came, my rajah was swallowed up, and I escaped out of the convulsion, like another Æneas, with Secundra Dass upon my back. Three times I have had my hand upon the highest station; and I am not yet three and forty. I know the world as few men know it when they come to die, court and camp, the east and the west; I know where to go, I see a thousand openings. I am now at the height of my resources, sound of health, of inordinate ambition. Well, all this I resign, I

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

care not if I die and the world never hear of me; I care only for one thing, and that I will have. Mind yourself: lest, when the roof falls, you too should be crushed under the ruins."

As I came out of his house, all hope of intervention quite destroyed, I was aware of a stir on the harbor side, and raising my eyes, there was a great ship newly come to anchor. It seems strange I could have looked upon her with so much indifference, for she brought death to the brothers of Durrisdeer. After all the desperate episodes of this contention, the insults, the opposing interests, the fraternal duel in the shrubbery, it was reserved for some poor devil in Grub Street, scribbling for his dinner and not caring what he scribbled, to cast a spell across four thousand miles of the salt sea, and send forth both these brothers into savage and wintry deserts, there to die. But such a thought was distant from my mind; and while all the provincials were fluttered about me by the unusual animation of their port, I passed throughout their midst on my return homeward, quite absorbed in the recollection of my visit and the Master's speech.

The same night there was brought to us from the ship a little packet of pamphlets. The next day, my lord was under engagement to go with the governor upon some party of pleasure; the time was nearly due, and I left him for a moment alone in his room and skimming through the pamphlets. When I returned his head had fallen upon the table, his arms lying abroad among the crumpled papers.

"My lord, my lord!" I cried as I ran forward, for I supposed he was in some fit.

He sprang up like a figure upon wires, his countenance deformed with fury, so that in a strange place I should scarce have known him. His hand at the same time flew above his head, as though to strike me down. "Leave me alone!" he screeched; and I fled, as fast as my shaking legs would bear me, for my lady. She too lost no time; but when we returned he had the door locked within, and only cried to us from the other side to leave him be. We looked in each other's faces, very white: each supposing the blow had come at last.

"I will write to the governor to excuse him," says she. "We must keep our strong friends." But when she took up the pen, it flew out of her fingers. "I cannot write," said she. "Can you?"

"I will make a shift, my lady," said I.

She looked over me as I wrote. "That will do," she said, when I had done. "Thank God, Mackellar, I have you to lean upon! But what can it be now? what, what can it be?"

In my own mind, I believed there was no explanation possible and none required: it was my fear that the man's madness had now simply burst forth its way, like the long-smothered flames of a volcano; but to this (in mere mercy to my lady) I durst not give expression.

"It is more to the purpose to consider our own behavior," said I. "Must we leave him there alone?"

"I do not dare disturb him," she replied. "Nature may know best; it may be nature that cries to be alone;—and we grope in the dark. Oh, yes, I would leave him as he is."

"I will then despatch this letter, my lady, and return here, if you please, to sit with you," said I.

"Pray do," cries my lady.

All afternoon we sat together, mostly in silence, watching my lord's door. My own mind was busy with the scene that had just passed, and its singular resemblance to my vision. I must say a word upon this, for the story has gone abroad with great exaggeration, and I have even seen it printed and my own name referred to for particulars. So much was the same: here was my lord in a room, with his head upon the table, and when he raised his face, it wore such an expression as distressed me to the soul. But the room was different, my lord's attitude at the table not at all the same, and his face, when he disclosed it, expressed a painful degree of fury instead of that haunting despair which had always (except once, already referred to) characterized it in the vision. There is the whole truth at last before the public; and if the differences be great, the coincidence was yet enough to fill me with uneasiness. All afternoon, as I say, I sat and pondered upon this quite to myself; for my lady had trouble of her own, and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it was my last thought to vex her with fancies. About the midst of our time of waiting, she conceived an ingenious scheme, had Mr. Alexander fetched, and bid him knock at his father's door. My lord sent the boy about his business, but without the least violence whether of manner or expression; so that I began to entertain a hope the fit was over.

At last, as the night fell, and I was lighting a lamp that stood there trimmed, the door opened, and my lord stood within upon the threshold. The light was not so strong that we could read his countenance; when he spoke, methought his voice a little altered but yet perfectly steady.

"Mackellar," said he, "carry this note to its destination with your own hand. It is highly private. Find the person alone when you deliver it."

"Henry," says my lady, "you are not ill?"

"No, no," says he, querulously, "I am occupied. Not at all; I am only occupied. It is a singular thing a man must be supposed to be ill when he has any business! Send me supper to this room, and a basket of wine; I expect the visit of a friend. Otherwise I am not to be disturbed."

And with that he once more shut himself in.

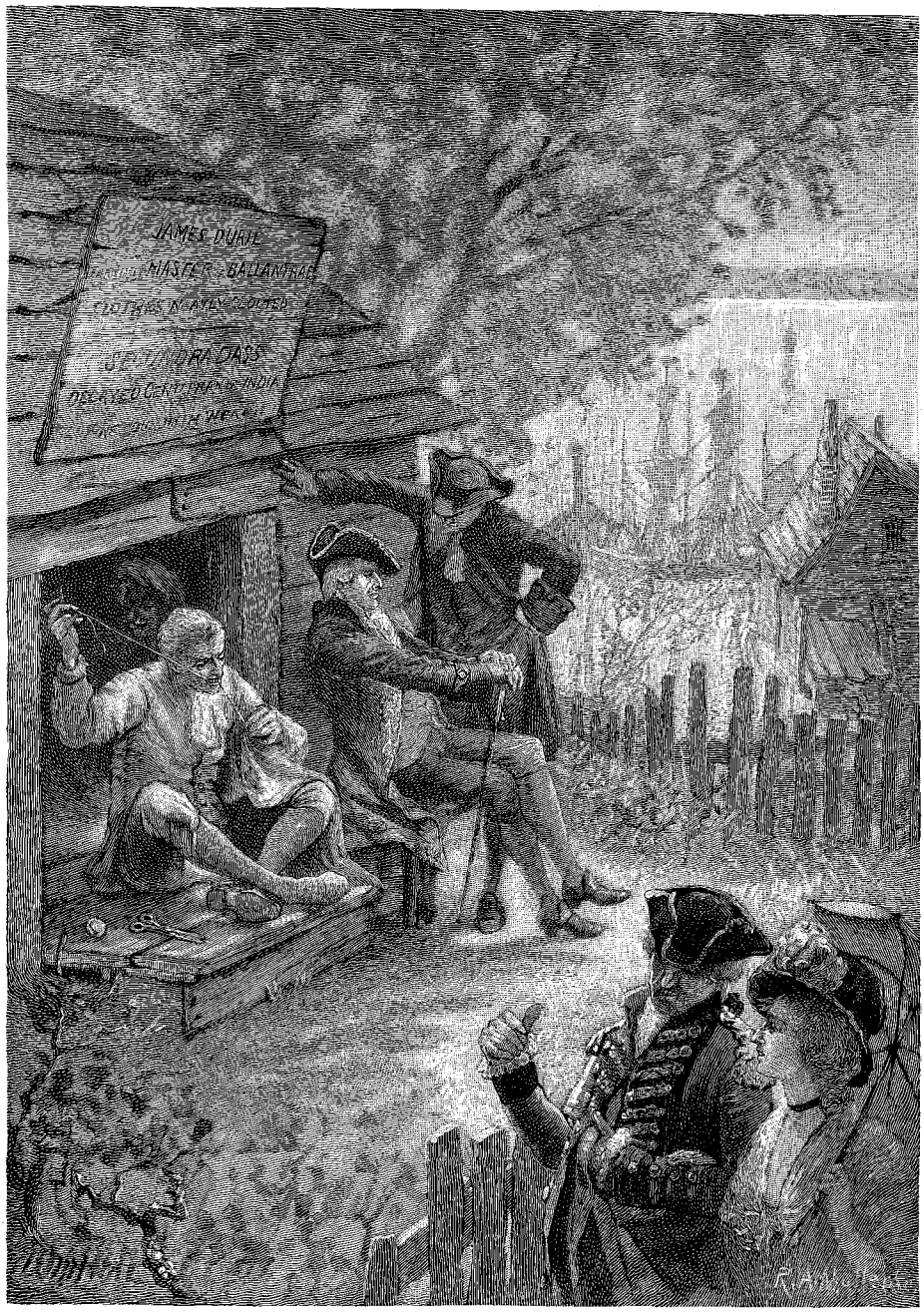
The note was addressed to one Captain Harris, at a tavern on the portside. I knew Harris (by reputation) for a dangerous adventurer, highly suspected of piracy in the past, and now following the rude business of an Indian trader. What my lord should have to say to him, or he to my lord, it passed my imagination to conceive; or yet how my lord had heard of him, unless by a disgraceful trial from which the man was recently escaped. Altogether I went upon the errand with reluctance, and from the little I saw of the captain, returned from it with sorrow. I found him in a foul-smelling chamber, sitting by a guttering candle and an empty bottle; he had the remains of a military carriage, or rather perhaps it was an affectation, for his manners were low.

"Tell my lord, with my service, that I will wait upon his lordship in the inside of half an hour," says he, when he had read the note; and then had the servility, pointing to his empty bottle, to propose that I should buy him liquor.

Although I returned with my best speed, the captain followed close upon my heels, and he stayed late into the night. The cock was crowing a second time when I saw (from my chamber window) my lord lighting him to the gate, both men very much affected with their potations, and sometimes leaning one upon the other to confabulate. Yet the next morning my lord was abroad again early with a hundred pounds of money in his pocket. I never supposed that he returned with it; and yet I was quite sure it did not find its way to the Master, for I lingered all morning within view of the booth. That was the last time my Lord Durrisdeer passed his own enclosure till we left New York; he walked in his barn or sat and talked with his family, all much as usual; but the town saw nothing of him, and his daily visits to the Master seemed forgotten. Nor yet did Harris reappear; or not to my knowledge.

I was now much oppressed with a sense of the mysteries in which we had begun to move. It was plain, if only from his change of habitude, my lord had something on his mind of a grave nature; but what it was, whence it sprang, or why he should now keep the house and garden, I could make no guess at. It was clear, even to probatim, the pamphlets had some share in this revolution; I read all I could find, and they were all extremely insignificant and of the usual kind of party scurrility; even to a high politician, I could spy out no particular matter of offence, and my lord was a man rather indifferent on public questions. The truth is, the pamphlet which was the spring of this affair, lay all the time on my lord's bosom. There it was that I found it at last, after he was dead, in the midst of the north wilderness: in such a place, in such dismal circumstances, I was to read for the first time these idle, lying words of a whig pamphleteer declaiming against indulgency to Jacobites: "Another notorious Rebel, the *M——r* of *B——e*, is to have his Title restored," the passage ran. "This Business has been long in hand, since he rendered some very disgraceful Services in Scot-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



"Neither spoke; nor did my lord so much as cast a glance upon his enemy."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

land and France. His brother, *L——d D——r*, is known to be no better than himself in inclination; and the supposed Heir, who is now to be set aside, was bred up in the most detestable Principles. In the old Phrase, it is *six of the one and half a dozen of the other;* but the Favor of such a Reposition is too extreme to be passed over." A man in his right wits could not have cared two straws for a tale so manifestly false; that government should ever entertain the notion, was inconceivable to any reasoning creature, unless possibly the fool that penned it; and my lord, though never brilliant, was ever remarkable for sense. That he should credit such a rodomontade, and carry the pamphlet on his bosom and the words in his heart, is the clear proof of the man's lunacy. Doubtless the mere mention of Mr. Alexander, and the threat directly held out against the child's succession, precipitated that which had so long impended. Or else my master had been truly mad for a long time, and we were too dull or too much used to him, and did not perceive the extent of his infirmity.

About a week after the day of the pamphlets, I was late upon the harbor-side, and took a turn toward the Master's, as I often did. The door opened, a flood of light came forth upon the road, and I beheld a man taking his departure with friendly salutations. I cannot say how singularly I was shaken to recognize the adventurer Harris. I could not but conclude it was the hand of my lord that had brought him there; and I prolonged my walk in very serious and apprehensive thought. It was late when I came home, and there was my lord making up his portmanteau for a voyage.

"Why do you come so late?" he cried. "We leave to-morrow for Albany, you and I together; and it is high time you were about your preparations."

"For Albany, my lord?" I cried. "And for what earthly purpose?"

"Change of scene," said he.

And my lady, who appeared to have been weeping, gave me the signal to obey without more parley. She told me a little later (when we found occasion to exchange some words) that he had suddenly announced his intention after a visit from Captain Harris, and her best endeavors, whether to dissuade him from the journey or to elicit some explanation of its purpose, had alike proved unavailing.

(To be continued.)

TARPON FISHING IN FLORIDA.

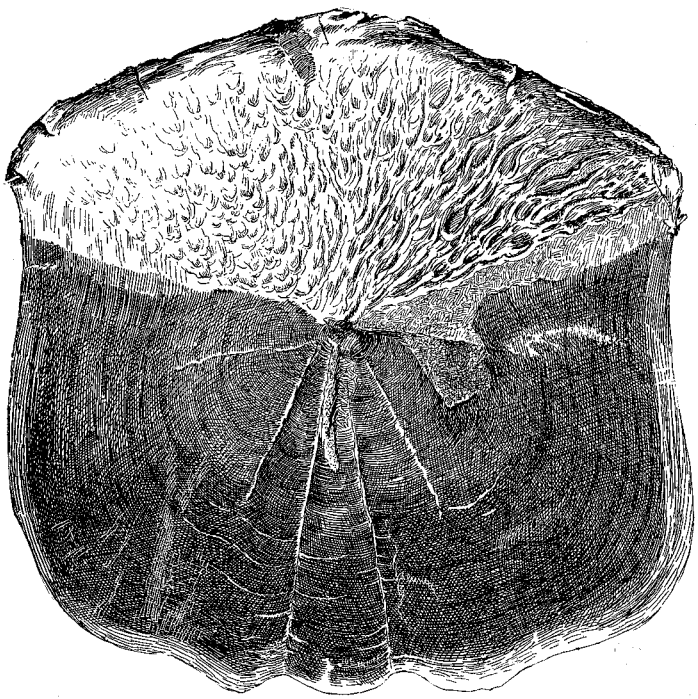
By Robert Grant.

IT is likely that to ninety-nine persons out of every hundred, even though piscatorially inclined, the terms "tarpon" and "tarpon fishing" will convey no meaning. Five years ago no one could boast of having taken a tarpon with rod and reel, and although the sport is now tolerably familiar to devoted anglers, the average individual who counts on getting away for a fortnight in the course of the year to kill something in the fish line is still likely to inquire "What is a tarpon?"

The tarpon is a fish, known to naturalists as *Megalops thrissoides*, ranging from fifty to two hundred pounds in weight and from four and one-half to over six feet in length; not unlike a cross between a huge herring—to which family it belongs—and a huge blue-fish in its general proportions; with large, protuberant eyes and an ugly mouth that opens on the fish's nose, so to speak, covered on either side with a hard, bony, semicircular flap that gives the effect of a jowl. Behind, and contiguous to the dorsal fin, is a sort of bony bayonet called the "feather," some eight or nine inches long, that protrudes into the air in the direction of the tail, forming an acute angle with the line of the back. The body is

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

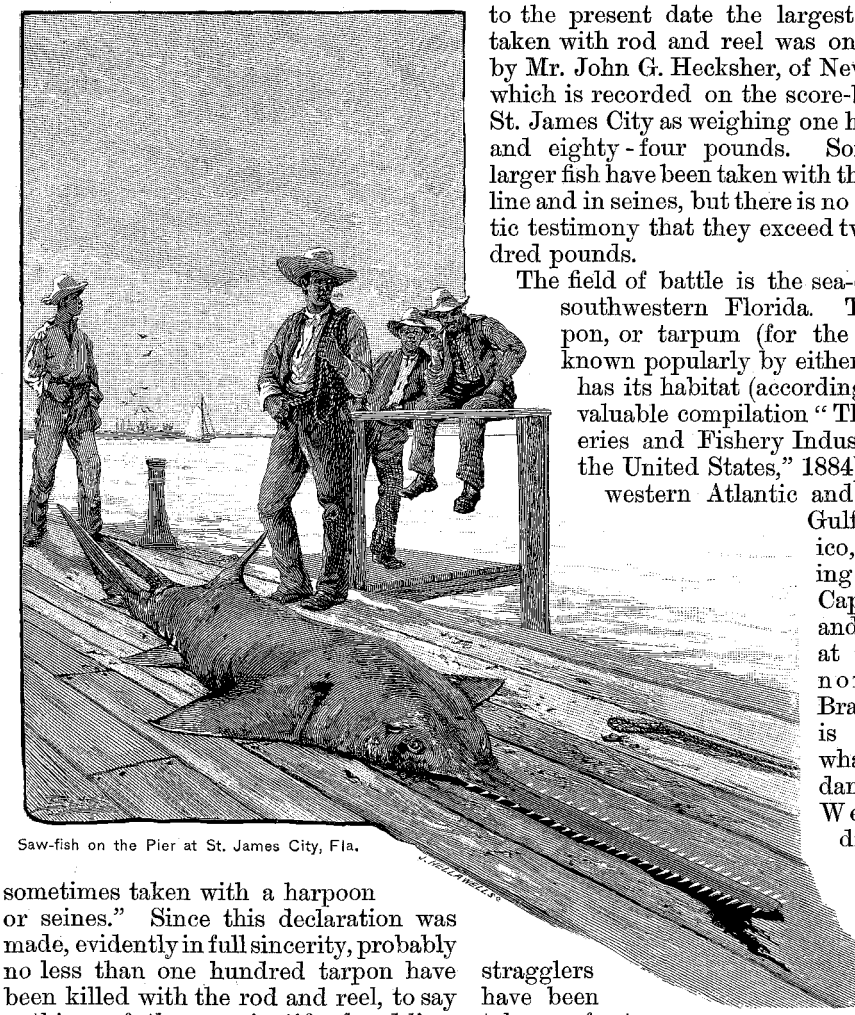
covered with brilliant argentine scales, which give the fish the effect of having been laved in silver, and which have won for it the title of the "Silver King." These scales, which are circular and slightly scolloped on the part of the edge that is overlapped, vary from one inch to three inches and a half across. The silvery epidermis covers only the exposed portion, which is about one-fourth of the circumference. The remaining surface is a slightly yellowish-white, not dissimilar in hue to mother-of-pearl, though without its iridescence, translucent but not transparent, and shiny on the inner side. They are hard, thin, and of shell-like fibre. After being removed from the fish and dried, they curl up so as to remind one of a Saratoga chip, but will, if moistened and compressed, regain at least for a short time their former shape. The extreme brilliancy of the silvery portion becomes tarnished by degrees, inclining either to yellow or black, but the permanent color is still beautiful and astonishing. The back of the fish is black, and the silvery effect gradually begins at a line well above the eye. Some anglers have seen fit to perpetuate their triumphs by having specimens of these monsters mounted on a panel, which is accomplished by splitting the fish in two, leaving an ample margin at top and bottom and treating the necessary half with arsenic and other condiments prized by the taxidermist. They form magnificent trophies for the hall or dining-room of a large house; and when gazing at a hundred-pound tarpon, which is certainly rather below than above the average weight of the fish, one finds difficulty in believing that it has been captured with rod and reel. Beside it the lordly salmon seems to sink into insignificance. They are sometimes eaten, but not with avidity by those who have tried them before, as the flesh is coarse.



Scale of a Tarpon (actual size).

In a book on fishes, published in New York in 1884, appears the following statement: "Imagine a herring-shaped fish five or six feet long, with brilliant silvery scales, the size of half a dollar, in schools of a dozen or twenty, leaping from the blue surface of a summer sea. This is all that the angler usually sees of the tarpon. Sometimes one of these glittering rushing monsters takes the hook. What follows? The line runs out with great speed till it has all left the reel, where it parts at its weakest point, and the fish goes off leaping seaward. When hooked on a hand-line similar results follow. No man is strong enough to hold a large tarpon unless he is provided with a drag or buoy in the shape of an empty keg attached to the line, which may retard or even stop the fish after a while. Aided by a buoy, the tarpon is

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

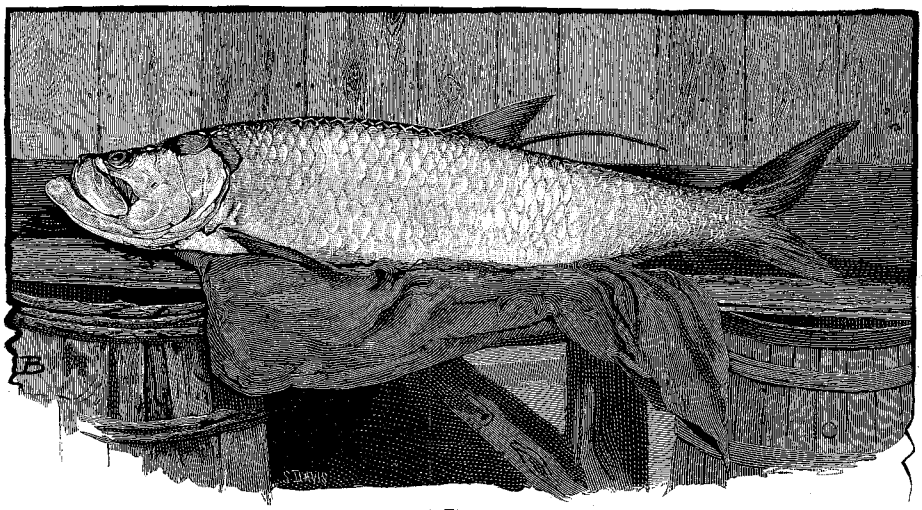


Saw-fish on the Pier at St. James City, Fla.

sometimes taken with a harpoon or seines." Since this declaration was made, evidently in full sincerity, probably no less than one hundred tarpon have been killed with the rod and reel, to say nothing of the unscientific hand-line. To Mr. W. H. Wood, a New York gentleman, belongs the honor of having been the first to capture one with sportsman's tackle; an event to which the London *Observer* of August 25, 1886, refers in the following enthusiastic language: "Here, at last, there is a rival to the black bass of North America, to the *Silurus glanis* of the Danube, to our own European salmon, and possibly even to the sturgeon, were that monster capable of taking a hook and holding it in its leach-like sucker of a mouth. Sportsmen may yet go to Florida for the *tarpon*, as they now go to the Arctic zone for reindeer, walrus, and musk-ox." (By the way, why does the *Observer* claim for Europe sole proprietary rights in the salmon?) Up to the present date the largest tarpon taken with rod and reel was one killed by Mr. John G. Hecksher, of New York, which is recorded on the score-book at St. James City as weighing one hundred and eighty-four pounds. Somewhat larger fish have been taken with the hand-line and in seines, but there is no authentic testimony that they exceed two hundred pounds.

The field of battle is the sea-coast of southwestern Florida. The tarpon, or tarpum (for the fish is known popularly by either name), has its habitat (according to the valuable compilation "The Fisheries and Fishery Industries of the United States," 1884) in the western Atlantic and in the Gulf of Mexico, ranging north to Cape Cod, and south at least to northern Brazil. It is somewhat abundant in the West Indies, and stragglers have been taken as far to the eastward as the Bermudas. It is the "Silver-fish" of Pensacola, the "Grande Écaille" (Large-scale fish), or "Grandy Kye," as it is pronounced, and sometimes spelled, and the "Savanilla" of Texas. Those interested in the fish from the angler's stand-point have confined their attention to the waters of Charlotte Harbor on the Gulf of Mexico and southwestern coast of Florida. Here the fish are found in comparative abundance, though the same is unquestionably true of that coast still farther to the south from Punta Rassa to White-water Bay; for the sport is still in its infancy, and comparatively few fishermen have made investigations on their own account, being content to try their for-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



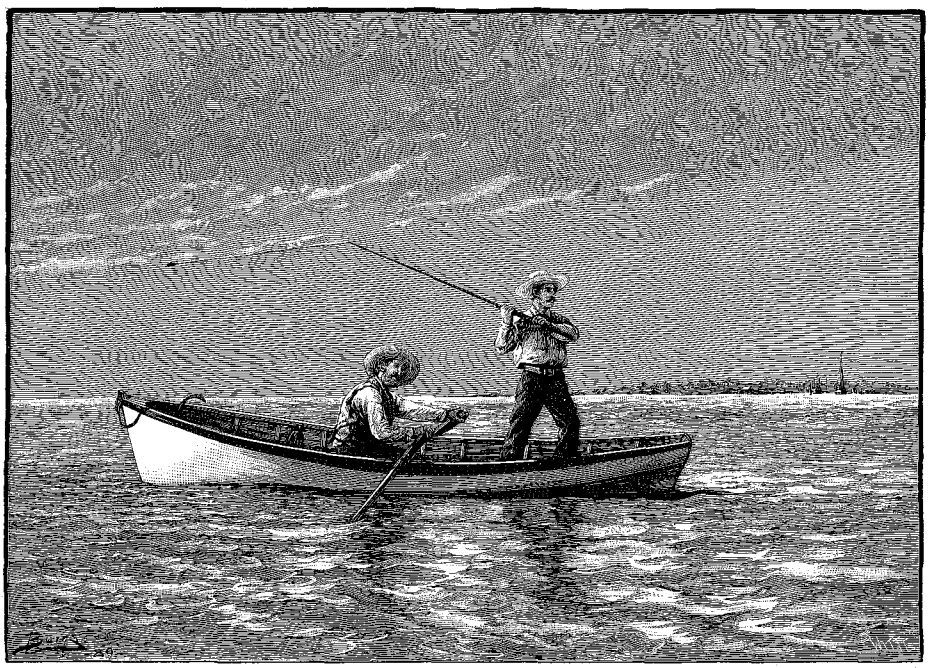
A Tarpon.

tune where others have been successful. There seems every reason to believe, however, that although the tarpon is known on the eastern coast of Florida, its favorite waters are the Gulf of Mexico; and whoever wishes to catch it is likely to fare better there than if he goes to Jupiter, Lake Worth, and the other points on the southeastern coast so deservedly famed for fishing of many other kinds. At present there are two recognized tarpon fishing-grounds, or rather fishing-camps—for the waters fished by the frequenters of each are adjacent—St. James City and Punta Rassa. Looking at the map of southwestern Florida, you will notice, at some distance to the southward of Tampa, Charlotte Harbor, lying between the 26th and 27th parallels of latitude, which extends no less than thirty miles from north to south, and varies from ten to fifteen miles in

Hotel at St. James City.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

width. It is protected on its westerly side by the islands or keys Gasparilla, La Costa, Captiva, and Sanibel, which form a sort of natural barrier against the storms in the Gulf of Mexico; and within these comparatively peaceful waters is situated Pine Island, fourteen miles in length and from two to four in breadth, on the southerly end of which is St. James City, so called, a village that owes its present flourishing condition to the enthusiasm of tarpon fishermen. Opposite to it, to the southeast, on the mainland, and but a few miles distant, is Punta Rassa, the other resort. Excepting yachtsmen who live on board their vessels and cruise along the angler's point of view; the winter climate is perfect, and the fishing of all kinds is excellent, including a large variety of fish able to offer not too stout resistance to the rod and reel—to say nothing of sharks, Jew-fish, and other monsters only too ready to carry off all one's line and disappear without showing themselves above water. Ladies can accompany their husbands and brothers without risk of being otherwise than very comfortable, or even of being bored, unless it is by the everlasting discussion as to the habits of the "Silver King" and the proper mode of capturing him, which goes on incessantly. Punta Rassa has equal advan-



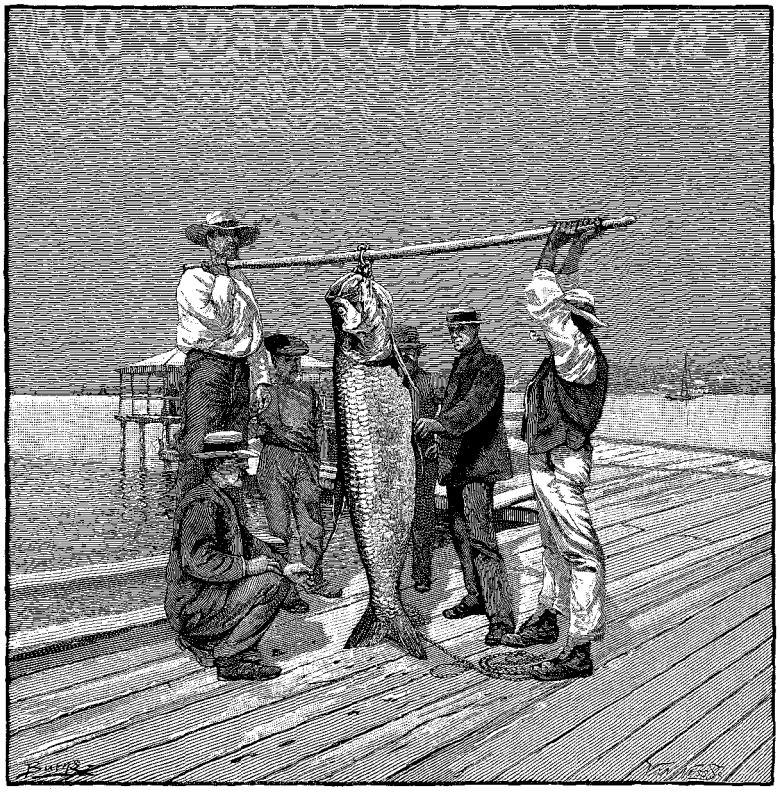
The Cast.

coast, persons desirous to kill a tarpon have hitherto made their head-quarters at one of these two places. At St. James City, which is moderately tropical in its vegetation—and which is rapidly being made more so by the transplantation of baby lime, lemon, pineapple, banana, guava, cocoanut, and other plants calculated to inspire the interest of Northerners—there is a comfortable hotel maintained by Northern proprietors. It is a delightful spot from the tages in the way of climate and facilities for fish, and is frequented by many of the most successful tarpon fishermen. The "Tarpon House" there is distinctly a sportsman's resort, as the accommodations, though comfortable, are as yet primitive.

To reach either of these places you take the train from Jacksonville to Punta Gorda by way of the Jacksonville, Tampa & Key West, and the Florida Southern Railroads, a twelve

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

hours' journey. Punta Gorda, which is the terminus of the railroad, is at the head of Charlotte Harbor, and consists



"He was six feet long and weighed one hundred and thirty-two pounds."

of possibly a dozen shanties and a fine hotel with accommodations for five hundred people. All the rooms are built on one side of the house, to command the water view. A long pier runs out from the hotel, off which all kinds of fish except tarpon are taken in abundance. Tarpon could undoubtedly be caught within a few miles of Punta Gorda, along the Myakka River, and elsewhere, if one were to make a study of the fishing-ground; but anglers prefer to push on in the little steamer Alice Howard, which starts from there three times a week, a five hours' trip, to St. James City, and slightly longer to Punta Rassa. The company interested in the development of St. James City expect to run a steamer daily another season, and there is talk of a railroad later.

Arriving at the San Carlos Hotel, at St. James City, early in March of the present year, I was greeted by the unwelcome information that tarpon were very scarce owing to the coolness of the weather. Unless the atmosphere and water are warm, they are not disposed to bite. Heat causes them to run in from the Gulf to cruise along the coast, preparatory to mating and spawning; but a "norther," or "cold wave," drives them back into deep water. They are caught as early as January, and from then the fishing gradually improves as the weather grows warmer. Tarpon fishermen have begun to realize that just at the time the Florida hotel keepers close their houses the fishing becomes very good; and instead of going south in January or February, they are disposed to defer their trips until the end of March, or, better, until April. Of course, many will prefer to take the chance of getting fish at a season when the Southern climate is most agreeable,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

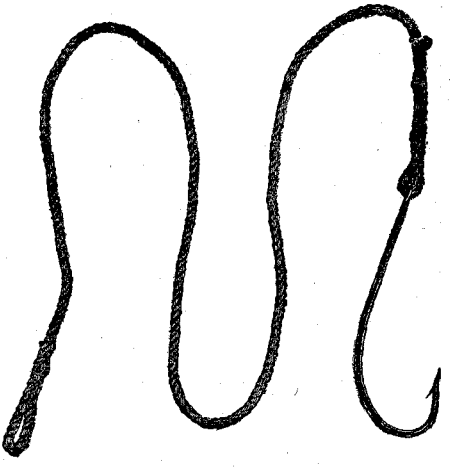
Ready to Gaff.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and our Northern winter most severe; but, purely from the stand-point of sport, there is no doubt that the later one goes the more likely one is to catch tarpon. To be sure, the flies may then be disagreeable and the weather uncomfortably warm; but, on the other hand, it will not be necessary to pass days of anxious waiting for the wind to change and the water to rise to a proper temperature. Let it be added that, though the hotel at St. James City has hitherto been closed early in April, Mr. Schultz has his "Tarpon House" at Punta Rassa open all the year round.

I found that up to my arrival, on March 14th, only nine tarpon had been taken this season at St. James City, and not quite so many, according to report, at Punta Rassa. Of these nine, five had fallen to one rod. There were about twenty fishermen in the house, several of whom had been there since early in January. One gentleman had fished for three successive seasons without landing a tarpon. The sport is still so thoroughly in its infancy that I found a variety of theories as to tackle in process of being tested. I had been advised at home to bring with me an ordinary eight and a half foot ash sea-bass rod in three pieces, but I was very shortly convinced that a rod in one piece is much more trustworthy, as the strain upon the joints while playing a tarpon is, at times, very severe. The choice of the wood is largely a matter for individual preference or caprice, though I believe that a well-tested bamboo cannot be excelled for this kind of fishing. Some of the rods were composed of a short butt and one long joint, which is preferable to the three-jointed rod, but less effective than a single piece. The length varies from seven to eight and a half feet; those anglers who aim to kill their fish in the shortest possible time use as near an approach to a stick as the sportsman-like spirit of the locality will tolerate without demur; but the ambition should now rather be to increase the length and suppleness of the rod, so as to adopt as nearly as may be the dimensions of the salmon rod, which has never yet, I believe, been successfully tried on the "Silver King."

One needs a large multiplying reel that will hold comfortably two hundred yards of line, and is furnished with a click that can be turned on and off at will. Even if the socket in which it is set contains a pin, the reel should be lashed on, and a leather drag should be securely stitched to one of the inner bars of the reel, whether one uses a thumb-stall or not. It will also be found convenient to have the handle long enough to protect one's fingers from contact with the side of the reel. I used a fifteen-thread linen line, which is strong enough—though most of the fishermen at St. James City were supplied with eighteen and twenty-one thread; and for a hook one cannot improve on a 10/0 Dublin bend, Limerick forged and ringed. The serious point of controversy, and the one which still remains to be solved, is as to the material of the snood or snell connecting the line with the hook. The tarpon has a bony mouth, in which no hook will take firm hold, and it is therefore absolutely necessary to let the fish gorge the bait



in order to have any chance of securing him. Moreover, although the tarpon has no teeth, its lips, or the flaps which clothe either cheek, and which at the corners become veritable "scissors," are so excessively hard and corrugated that the ordinary line would chafe off or be snipped off in a very short time. It is necessary, therefore, to supplement the line with some sort of snood, about twenty-seven inches long, in order to al-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

low for the gorging of the hook. A variety of devices has been tried. It was thought that small chains would answer the purpose, until it was demonstrated that sharks and kindred pests, which are just as likely to take the bait as a tarpon, cannot be got rid of without cutting the line, whereas they will immediately bite off any softer substance than metal. It is said, also, that the tarpon is apt to feel the chain and to throw out the bait before it is gorged. At any rate, experienced anglers have discarded them. The present judgment is in favor of a laid cotton line that is practically a cod line of $\frac{1}{8}$-inch or even $\frac{3}{16}$-inch diameter. This, it is claimed, will endure the action of the tarpon's lips for a long period, and yet yield instantly to the teeth of a shark. But while it has proved fairly satisfactory, I was advised by the gentleman who had landed five out of the nine tarpon taken this season, to wrap my $\frac{1}{8}$-inch snood with fine copper wire. This I did, although some of the other fishermen shook their heads, declaring that a shark would not be able to cut the wire; but my adviser was of the contrary opinion, though he was inclined to believe that a $\frac{3}{16}$-inch cod-line, tightly laid, ought to be stout enough to render wire unnecessary. The snoods which he had of this kind were very hard, and unlike those generally in use, which being loosely laid had the effect of being soft and yielding. I was disposed to think that his were the best, in spite of the fact that they would offer more direct resistance while chafing. One or two other anglers thought they had solved the difficulty by encasing the snood with rubber, on the theory that thus there would be no chance for friction; but there was evidence that this contrivance had not proved particularly efficacious. Indeed the whole question of snoods is in embryo. It seems desirable that the cotton snoods should be blackened a little, so as to become, when soaked, as near the color of the water as possible. As tarpon are shy fish, one cannot be too careful of frightening them.

I was called with the rest, on the morning after my arrival, so as to be able to get away from the house at about seven. There is said to be no advantage in an early start, except that the first boats off obtain the choice of grounds; tarpon are more likely to bite on the flood tide than at any especial time of day. Each angler has his man and boat, an ordinary lap-streak rowboat about eight feet in length, such as is commonly used at sea-side resorts. There is, of course, a considerable choice in guides, and it is important for a novice to get a skilful boatman who knows the grounds. The hotel is about one-third of a mile from the wharf, and for the convenience of everybody a wagonet and pair makes trips perpetually for a trifling remuneration. The pier, as at Punta Gorda, juts out several hundred yards, and from the end of it sheep's-head are taken in profusion. Only a few days before my arrival a large leopard shark had been hooked and landed from the same place.

The tarpon grounds lie anywhere from two to eight miles from the pier. My boatman — a white man, as most of the boatmen at St. James City are — advised our trying the nearest, Matalacha Pass, as it was called. The best places for fishing at this season are on the points of the oyster-bed bars in the shallower water on the edge of the channel. The fish come in with the tide and follow the winding channel, which runs close to the bars. The whole harbor is intersected by these oyster-beds, and there are many sand-keys and numerous islands completely covered with mangrove bushes, which seem to spring out of the sea, so deeply are the roots immersed. The mangrove is extremely prolific, and is largely in excess of all other growths in this neighborhood.

I anchored by chance not far from the gentleman who had killed the five tarpon, and very soon another angler took up a position some two hundred yards in my rear. There was good fishing for all three boats, my guide said; but it is an unwritten law that when a tarpon is hooked the other boats on the ground shall be kept out of the way of the fortunate man. I observed that each of my rivals had two rods in use, one of which was tended by the boatman, although the process of tending is a very simple one until a fish takes hold.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Someone has well compared the waiting experience in tarpon fishing to "sitting in a Turkish bath looking at a string." You bait your hook with a collop of mullet and cast just as you would for striped bass, letting the bait sink to the bottom. You give a little slack, and then you have nothing to do but sit still until something happens. You may sit still the whole day without anything happening. I did: not a single genuine bite did I have from half-past seven until half-past four; and though it was not particularly hot, my man Pierce said that it usually was, and that I should do wisely in supplying myself before starting out again with a broad-brimmed Panama hat, such as everyone else wore.

At first it was rather interesting. My reel unfortunately was without a click, and the action of the tide made the line run out a little, unless I kept my finger firmly on it, so that, as I had been told that a tarpon begins by stealing off quietly, I had numerous false alarms, thinking every now and then that something was trifling with my bait. In the meantime my boatman was cutting up mullet and throwing it overboard to attract the fish to our neighborhood. Mullet is the only bait they are known to take. He also suggested putting out a hand-line, as I had only one of my rods with me; but this I forbade, not wishing to diminish my chances of landing a tarpon with rod and reel. Forty-eight hours later, as it happened, two gentlemen who were using a hand-line in addition to three rods, had their only strike of the day on the hand-line, very much to their disgust. With the exception of changing the bait about once an hour, as it becomes water-soaked, there is nothing to do but be patient. Instead of a tarpon, one may hook a shark, a large channel bass, or a grouper. Small fish are not apt to bite on the tarpon grounds, but sharks are often very troublesome. During the present season a gentleman who was fishing with his rods, chanced to hook simultaneously a tarpon and a shark. Although the tarpon jumped out of the water, he was for some moments unable, owing to the crossing of the lines, to discern which fish was on which, so as to cut off the unwelcome visitor. A tarpon invariably reveals himself by jumping out of water as soon as he feels the hook. More tarpon are lost by premature tension of the line than through any other cause. The novice is properly cautioned by everybody to let a tarpon carry off some half a dozen fathoms of line before checking him in the least. Usually the fish hooks himself, and is only too apt to feel the hook before the bait is gorged, in which case he leaps out of water and shakes his head violently in attempts to get rid of it—attempts which are sure to be successful in case the barb be not well lodged in his gullet. After forty or fifty feet have run out, one may safely strike and drive the hook home into whatever the prize may be. If nothing shows itself, and the line flies out at a terrible rate, you have probably got a shark, which, unless very large, you can doubtless drown if you wish, if the disagreeable customer does not relieve you of his presence by biting off the hook. As a matter of practice you will be likely to cut the line yourself without further ado. A large channel bass of twenty or thirty pounds also will occasionally take the bait, or a grouper—a delicious fish of the perch family, that makes very stout resistance for its size, which does not exceed fifteen pounds. The tactics of the grouper are to get into a hole or cave, from which it can be dislodged, if at all, only with great difficulty. My neighbor of the five tarpon hooked two groupers in the course of the forenoon, and preferred in each instance to cut his line rather than waste time in trying to bring them to terms. While we were fishing for tarpon, the wife of this same angler was trolling with a light rod in the near distance with great success, taking every few minutes one of the many lively fish, channel bass (red fish) "sea trout" (squeteauge or weakfish), cavalli, and others with which the waters of Charlotte Harbor abound. Later in the day her example was imitated by both of my companions, but I was advised by my guide to remain at my post, for the reason that a tarpon might take hold at any moment. He intimated that it was too much the custom for sportsmen, after having fished for tarpon two or three hours, to be will-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing to sacrifice the chances of big game to the paltry satisfaction of filling one's boat with ordinary fish. I was Spartan enough to act upon his counsel, even to the extent of eating my luncheon in the boat with my finger still on the line, without going ashore. About one o'clock, when the tide turned, I shifted my position to another ground about a mile distant, where Pierce thought we should be more likely to hook fish returning with the ebb, and there I remained until nearly five o'clock, without getting a bite of any kind.

It was hardly inconsistent with good fellowship that I did not feel any keen regrets to find, on reaching the hotel, that no one of the fifteen other fishermen had fared any better than I as regards tarpon. The landing-stage at the wharf was covered with small fish, of from two to ten pounds weight, but no one could boast of having even hooked a "Silver King." The general verdict was that the atmosphere and water were still a little cool for good tarpon fishing.

The next morning dawned warm and beautiful. I was up betimes, with the intent of visiting a more distant ground known as the "Six-mile Rookery," where I again found myself in company with the champion fisherman of the season, whose wife, by the by, had the ill-luck, in the course of the day, to lose a twenty-pound channel bass, through the clumsiness of her boatman, just as it was ready for the landing-net. When not far from the ground, we noticed numerous shoals of mullet, which is a favorable sign, and presently those in the boat ahead signed to us to be still, and pointed to the water, on which the fins of a troop of tarpon were plainly visible. We anchored in hope, in spite of the consciousness that fish in shoals do not take the hook as readily as when travelling alone or in small detachments. We fished diligently without the least success for some time, and then shifted our ground a little farther on, as we had been lured by the sight of the tarpon on the surface to make fast, at first, somewhat short of the usual place. Our new anchorage was as on the day before, rather less than a fourth of a mile from shore, and in water not more than ten or twelve feet deep. Here let me add that later in the season, when the weather has grown hot, tarpon are taken in the shallow water close to the shore as well as on the edges of the oyster-reefs. I had two rods with me on this day, so as not to throw away any chances, and suggested to my man the advisability of lashing on my reels, but he scoffed at the idea. Out went the hooks well furnished with fresh mullet, and again we abandoned ourselves to waiting. Again, too, we waited in vain; waited in the hot sun, for it was warm at last, and I was glad to don my new shade-hat. We had no bites, and yet the situation was tolerably exciting, from the fact that every now and then a tarpon would spring out of water on one side of us or the other, and fall back with a grand splash; never very near to us, and yet sufficiently so to fill us with hope of better things, although, as an old salmon fisherman, I knew that jumping fish are not apt to bite. Still it was a great deal to be sure that they were there. Three hours passed, and it was luncheon time again. Rather despondently, I must confess, did I masticate the sandwiches, doughnuts, hard-boiled eggs, grape-fruit, and bananas which my dinner-pail contained. Just as I had finished there was another splash. A tarpon had jumped behind us not more than two hundred yards away. My companion almost immediately pulled up his anchor, but instead of moving to where the fish had jumped, as I expected, put his boat toward the shore. "He has gone ashore to fish for mullet," said my man. Whereupon I recalled that he had expressed the intention of spending the early part of the night on the ground, for tarpon will bite by moonlight; then the tide would be at the flood again, for now it was beginning to ebb. His guide had a seine with him, with which he was able to snare bait from the shoals of mullet by wading knee-deep and casting it over them.

However, although the outlook was not promising, we shifted our anchorage to where the last tarpon had made his splash and put out our hooks again.

It was unrefreshingly hot, and just about slack water, scarcely ebbing at all; and there we sat for another hour, until, rather wearied at the monotony of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the thing, I began to practise casting, in which I was not very proficient. The other rod lay between me and my boatman, under his supervision. I was reeling in my line after a short abortive cast, when suddenly Pierce made an exclamation, and I turned to see his line running out rapidly, so rapidly in fact that the handle of the reel knocked a piece out of his forefinger. He reached me the rod, and just after I had seized it, taking care to exert no pressure, a large silvery mass leaped out of water straight into the air and fell back again.

"A tarpon, and a big fellow," cried Pierce.

In considering any statement as to the height a fish jumps out of water, it is important to know whether the narrator has included the length of the fish in making up his figures. That is to say, if a fish is six feet long and leaps from its native element so that the tip of its tail is two feet clear of the surface, good story-tellers will claim that it has jumped eight feet out of water. Others will take oath to only two. It is sufficient to state that the tarpon in question jumped either two feet or eight, according to the individual preference of the reader. At that time he had taken out with velocity about fifty yards of line; the leap terminated his first rush, and I had an opportunity to reel in about a fourth of the amount before he started off again. Meantime my man had hauled up the anchor and we were in process of being towed by the big fish, whose frantic efforts to escape were making the reel revolve at a famous rate. From long experience with salmon, I knew enough to keep the point of my rod as high as possible consistent with the heavy strain, and the moment the rush diminished in intensity I clapped my finger on to the leather drag and resisted stoutly, reeling in every inch of line that I could recover. But before long he was off once more in mad career, and out of water, viciously shaking his head in determined efforts to spit out the hook. His failure to do this after a series of endeavors showed that he had swallowed the bait, and that my chief concern now should be as to the strength of my tackle.

His first two rushes were the fiercest, and he did not at any time during the encounter carry out over one hundred and fifty feet of line; but after checking him, while it was comparatively easy to hold him steady on a taut line, allowing him to tow us quietly along, I found serious difficulty in getting him nearer the boat. The result of bearing on him with the rod, or, in fishing parlance, giving him the butt, was to start him off in hot haste. I have since been informed that experienced tarpon fishermen force the fighting from start to finish, never allowing the victim to rest, but inducing him to exhaust himself by constant excursions. Moreover, they gain on him inch by inch by lowering the point of the rod toward the water when the line is taut, and then raising it again with energy, reeling vigorously at the same time. Such a proceeding with a salmon would be apt to snap the gut casting-line, or break the tip, and I was afraid to indulge in it in this case, not knowing what my tackle would stand. Consequently my progress in gaining ground on the monster was slow. Nevertheless, after half an hour I enjoyed the satisfaction of seeing him come to the top of the water, putting up his nose at first to blow, which is a custom with them, and at last showing his fin. Within a few minutes more he was fairly on the surface in some distress, and vigorous reeling on my part brought him within ten feet of the boat, where he lay rolling his huge tail from side to side, following the channel and dragging us after him. At this time one used to tarpon fishing would probably have got him within reach of the gaff, and perhaps I should have succeeded in bringing him within reach of a long-handled one; but unfortunately that which my man had with him was fastened to a very short handle. Straining as much as I dared, I could not force him to a spot where Pierce could get a fair thrust at him. His Silvery Highness evidently was alarmed by the boat, and avoided it as much as possible. At last Pierce, in desperation, struck at him and missed him, and in a moment the line was flying out again and the point of my rod was being dragged down as the tarpon plunged into the depths again, and by another glorious rush regained all that

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I had won. Then ensued a long up-hill fight, which I can compare only to a hand-to-hand tussle with a wild beast. Again and again did I get him up to within ten feet of the boat, and again and again would he thwart my efforts to draw him nearer. The thumb and forefinger of my right hand, where, owing to the shortness of the handle, they came in contact with the screws and side of the reel, were without skin and bleeding profusely. I had not realized the importance of gloves or thumb-stalls, having always fished for salmon with bare hands. Had it not been for the leather drag, I could not have held him; and yet this, at the point where it was sewed to the bar of the reel, served to clog the line, owing to the lack of room for the line, when unevenly wound, to act freely, and only by reeling desperately hard could I wind at all the last ten yards. One should take care to have on one's reel only so much line as will work entirely smoothly under the bars, making due allowance for the expansion caused by soaking. I tried to be very careful not to let my line become tangled, and to apportionate it evenly over the surface of the reel. I found it convenient to hold the line against the rod with my left thumb while the fish was steady, as it relieved the pressure, shifting it to the drag when he began to run.

After the struggle had lasted about an hour and a half I was appalled by my reel suddenly falling from my rod to the bottom of the boat. The rings which held it in place had slipped out of position. The same misadventure had twice happened to me while playing a salmon, so that I was not so much fluttered as if it had been a virgin experience, but I must confess that my heart sank within me. Having hastily picked up the reel, taking care not to twist the line, I told Pierce, who was standing behind me, to step aft and slip the rings into position after I had fitted it into the socket. Fortunately the tarpon did not make one of his rushes during this ticklish proceeding, which was successfully accomplished.

My hands were now becoming very cramped and weary, owing in a measure to the stiffness of my reel caused by the clogging of the line to which I have referred. The big fish seemed to have got his second wind, and though his rushes were less frequent, he showed a disposition to keep down in the deep water about thirty feet ahead of the boat. In the first two hours he jumped eight times, I should say, in addition to a series of five or six consecutive skips along the surface—a very pretty performance, and one which indicated that he was growing weaker. We had made three fruitless attempts to gaff him, each of which might have been successful had the gaff handle been of proper length. It was curious to note how well the creature knew the channel; he pursued his winding way with admirable precision. My position was in the stern, on my knees, which were doubled under me, with the butt of my rod embedded between my thighs. My boatman sat at the oars in the middle of the boat, facing me, and his duty was to back water so as to keep the stern always toward the fish, in order to prevent him from pulling us sideways and thus possibly upsetting us, or from getting under the boat. In my experience with this fish, in contradistinction to the salmon, I observed that he always kept the line taut and never ran directly toward the boat so as to double on us, as a salmon always does—which is one of the most interesting phases of that exciting sport. I have since been informed by others that my experience in this respect was not the normal one, and that a tarpon will often make a bee line for his tormentor even so far as to run under the boat. I am not, however, entirely convinced as to the truth of this.

After another quarter of an hour I had the creature on the surface once more, wallowing in manifest distress, and having drawn him almost to a proper spot for gaffing, was induced by my own weariness to urge Pierce to try another thrust at him with the hook. This time he struck him, but the iron only slipped off the monster, who glided under the stern, giving at the same moment a swirl of his tail that drove an avalanche of water in my face and all over me. One beautiful scale lay before me on the thwart as a memorial of what had happened. I was just able to make

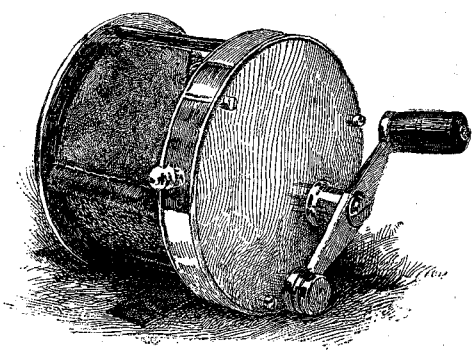
PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sure that my line was not entangled, and then handed the rod for a moment to my guide in order to recover my dazed senses. This momentary respite was a great refreshment, and when I took the rod back again I felt that I, in my turn, had got my second wind.

I was determined now to try more strenuous efforts, and I began to adopt the forcing process, of which I have written earlier, by means of which I was enabled to reel in more line and compel my victim to approach nearer the boat. We had, however, another half-hour's earnest tussle before I could put him alongside the gunwale, where Pierce could have a deliberate blow at him. Before this moment arrived I had to undergo the disagreeable emotions resulting from getting my line wound once round his body, to free which required care and cautiousness on my part. It is necessary, when the fish is nearly exhausted, to be constantly on one's guard that the huge swinging tail does not come in contact with and cut the line, as it readily will do. As a final horror I discerned, when my line was becoming short, what looked like a large knot midway between the reel and the ring of my tip. I realized that if it were one, unless it would pass through the ring I should probably lose the fish, and I felt very apprehensive. It proved, however, to be only a bit of dark green sea-weed which did not become an obstacle. A few moments later Pierce plunged his gaff into the water and brought it up into the breast of the noble fighter.

"Sit still, sir," he said to me, anticipating doubtless my anxiety as to how he could get such a mammoth creature into the boat; then he canted the gunwale ever so little and slipped the "Silver King" over it as neatly and easily as possible. The poor fish was nearly dead, and made but a single flap with his great tail. He was six feet long and weighed one hundred and thirty-two pounds; it had been ten minutes of three when I hooked him, and it was now seven minutes of six, and he had towed us three miles. As he lay on our way home, and that evening at the wharf, with the moonlight resting upon him, he was by far the most beautiful specimen of the fish creation I have ever seen. As a tarpon had not been landed for ten days, some interest was occasioned at St. James City by his arrival, and the gentleman who had fished for three seasons without taking one said: "I do not wish to disparage your skill, but really you were very lucky." I quite agree with the gentleman; I certainly was.

Tarpon fishing is, in my opinion, the most magnificent fishing sport in the world. I understand that veterans at it now refuse to take up the anchor after hooking a fish, preferring to part company rather than not to bring him up to the boat by force of rod and reel only. As compared with salmon fishing, the vast difference in the size of the two fish is a vital factor on the side of the "Silver King." Anglers with but slight experience have at least an even chance of saving a salmon, but what accomplished fisherman expects to land more than one tarpon in three? If a salmon were equal to a tarpon in weight, and still retained

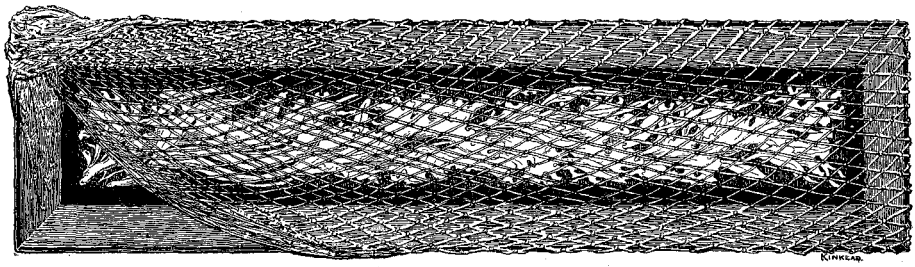


The Reel.

proportionately its activity, it might be a more formidable antagonist; but forty-pound salmon are rare, whereas one hundred and twenty pounds is not much more than the average weight of a tarpon, which shows the futility of such an argument. The manner of fighting is practically the same as regards running and leaping; the tarpon does not sulk as the salmon is so fond of doing, nor, so far as my experience goes, does he double on the angler, which of course is an interesting trait in the salmon. Nor, indeed, are the surroundings of a tarpon fisherman to be compared with the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

beautiful scenery and picturesque life on a Canadian salmon river. Bait is a dirty substitute for the trig fly, and the monotony of listless waiting palls on one accustomed to repeated casting. But, all the same, anyone who has hooked and landed a tarpon can well afford to smile at the enthusiasm of any other fisherman in creation. Try it for yourself and see.



MEMORIES.

By Brander Matthews.

WHEN Christmas broke over the fort in the far Northwest where Lieutenant Robert Douglas, U. S. A., was stationed, the wind was blowing gently from the southeast. There had been a light snowfall during the night, and as the sun arose there was a faint suggestion of warmth in the beams that glistened across the crystalline flakes. It seemed as though the cold had loosened its grip for a while. All through the morning the weather was mild for the season and for the place, and by noon there was even a vague hint of a possible thaw. The mail-rider who brought the weekly bag of letters and newspapers had trotted his broncho into the quadrangle a little before one o'clock, exactly on time. No railroad and no telegraph line linked Fort Roosevelt with the rest of the world, and only once in seven days did the soldiers who were stationed on the outpost of civilization get news from its head-quarters. Time was when the troopers quartered there had fought the Indians of the border; but the rotting stockade had been torn down long since, and Fort Roosevelt was now a fort in name only. Its narrow, low buildings, made of logs, shacked sometimes, and sometimes squared and more regularly joined, still sheltered brave men, but they no longer needed to do battle with redskins; they had to confront a white enemy only, and they found cold winter a fiercer foe and more unrelenting than the Sioux. Its assault was harder to withstand, for, although the Indian is now armed with the repeating rifle his armory is not exhaustless—and nature's is. Outside of the government reservation there was no house within fifty miles, save the tumble-down cabin of a Missouri squatter four or five furlongs away at the bend of the river. No friendly smoke curling hospitably upward comforted the eye that might interrogate the horizon.

It was about two o'clock when the blizzard began. At noon a solemn stillness filled the air, after the wind from the southeast had died away early in the day. Then, all at once, there was a black cloud in the northwest, swelling forward boldly—on the plains of the West, as on the coasts of the East—the most dangerous northwester is wont to come butt-end first. Lieutenant Douglas saw the signal and knew its significance. He looked at his watch; there would be time for the trooper to return before the storm was upon them. Two of the lank and sallow children of Pike

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

County Pete lay sick of a fever in the wretched cabin by the elbow of the river; they were attended by the surgeon of the post, and they had been nursed by the doctor's daughter, Lucy. It was to them that the officer had sent a mounted messenger with a few delicacies from his scant store, such as the doctor had suggested. Douglas stood for a moment at the corner of the parade between the storehouse of the commissary and the long, single-story stables. He was a young man still, despite the grizzled mustache which curved over his resolute mouth, and the touch of gray in his hair. His eye was sharp and his figure straight and sturdy. As he gazed the black cloud uprose and spread wide, and the blizzard broke. He caught the first breath of the icy simoom which came sweeping across the Sahara of arid snow, and he went back into the stables to give a few words of warning and advice to his men.

When he came out a little later to cross the quadrangle to the officers' quarters, the breeze had freshened and quickened until it blew a gale. The velocity of the wind was increasing, and it was already thirty miles an hour. Within sixty minutes the temperature fell as many degrees. The atmosphere, thick with flying snow, as fine as sand and as sharp as a needle, began to darken as though it were already nightfall. The lieutenant strode through the storm, which for the most part was steady and unswerving, although now and again a gust swept sideways, and for a few seconds there might be an eddy. But the break was for a moment only. Then the wind gathered its strength and again rushed ahead, irresistible and pitiless. A fine shower of icy particles, frozen snow-dust, and solid rain-drops made Douglas's passage from the stable to his own door almost impossible, sheltered as was the little square within the buildings of the fort. Out in the open no one can make headway against the ice-blast for long, and only the most experienced plainsman can hold his own.

The stout log-house in which the officers had their quarters shook with the fury of the gale as Robert Douglas entered the sitting-room he shared with his fellow-subaltern, Paulding Van Dyke. The mail had been distributed, and the servant had laid on the table the letters and papers of the two officers. For Van Dyke there were at least a dozen envelopes, besides two or three packets—presents, no doubt, thought Douglas, as he took up his single letter from a tidy heap of newspapers on which it rested. It was Christmas afternoon, and probably Van Dyke was at the doctor's little house talking to Lucy, whom he was to marry in the spring—and that was why he was now neglecting the many Christmas greetings the mail-rider had brought him. Douglas tore open his own letter, and as he read it his sad face brightened and his eyes lost a little of their severity. It was a brief note from the editor of an important review in New York declaring that he had great pleasure in accepting Mr. Douglas's thoughtful and admirable essay, "How to Train the Indian for Citizenship," and he hoped to find room for it in an early number. The officer had taken the letter to the light to read; and having put the editorial communication into his pocket he stood at the window, silent in thought. On the level ground before his door the fantasy of the wind had heaped a gravelike mound of snow, as though some frozen giant had been buried there. Douglas's eyes fell on it unwittingly, and the sorrowful shrieking of the wind, as though demons were chanting a dirge, struck chill on his ear, and he shivered.

He turned away and threw another cotton-wood stick on the fire, which was waning with the weariness of ashen age. Then he set a chair between the light and the heat, and gathering up his heap of newspapers he sat down. He broke the wrappers and arranged the papers in order; they were a week's issue of the *Gotham Gazette*, for it was by taking a New York daily journal that he kept touch of the world. He began to read the earliest in date, in which the freshest news was then a fortnight stale. Rumors of wars there were a plenty, and the young soldier, immured in a wooden house in a vast loneliness, was almost ready to wish himself a Russian that his blood might be tingling with the ardor of impending battle. There followed an account of a grand ball in

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

London, and a description of a new play in Paris; but for Robert Douglas these items of intelligence lacked interest. Yet with the persistence of one whose reading matter is rationed, he perused diligently the long column of cable despatches from Europe. Suddenly, as he read, his face flushed, and then blanched. His grasp on the paper tightened and his eyes travelled swiftly till he came to the end of the paragraph. Then an unconscious sigh broke from him. He lowered the newspaper and sat still, staring at the blank wall before him.

Outside, the blizzard blew with untiring swiftness, but the thoughts of the lonely man within were quicker yet. These bore him far away, across time and space, back to his childhood. He saw himself again a boy of ten, passing his grievous first day at a military academy in a little town in New York, on the banks of the Hudson. It was a winter morning and there was snow in the air when he was brought before the principal, an old West Pointer, kindly in intent, strict in discipline. On the principal's knee sat a little girl, his niece, a year or two older than the new comer. Bright golden hair fell in ringlets about her beautiful head, and she had a bright smile for the diffident boy. The scene arose before him again, and he knew that his life had been changed by that smile. Without an effort he recalled all the incidents of his first few months at boarding-school. He saw the house itself with the right-angled piazza, and the huge snow-heap in the bend below, fallen from the two roofs meeting above it—a snow-heap into which he had suddenly been tossed, neck and crop, as he came out on the piazza during the recess of that first day at school—a snow-heap from the feathery mass of which he had to flounder as best he could though it rose high above his head. He saw again, as plainly as though a score of years had not passed, the level parade-ground where the boys built an Eskimo hut out of snow, a regular igloo, with its tunnel-like entrance through which they crawled on hands and knees to crouch around the fire within to eat doughnuts and crullers and other Dutch goodies. He saw again the long hill down which the boys "went belly-whoppers," coasting into the village. He saw the shop, halfway down, where one might buy the surreptitious dime-novel in its yellow cover with the figure of an Indian on the warpath, and where only might be procured a certain sort of lollipop, an unforgetable joy of boyhood never elsewhere discoverable—saccharine globes, brown and striped, and impaled, three or four of them, on the branches of a sassafras twig. He saw again the frozen pond in the woods where he first skated. He heard again the sharp roll of the drum which aroused half a hundred youths to breakfast before their sleep was half complete. He felt again the blows he took and gave in the weekly fights in which the larger boys made the younger engage every Sunday morning under the gallery of the gymnasium, during the long dull interval between breakfast and church. But what he could most readily recall was the little girl, dark-eyed and golden-haired, imperious and roguish, adored by all the boys, petted by all, and joining in their gentler sports once in a while. Was it not on his sled that she had been pulled to the top of the hill? Was it not with him that she had coasted more often than with any other lad?

Then the winter went, and summer came and was gone, and another winter also; and as Robert Douglas sat silent and staring, the memory of yet another summer passed him, and again he felt the heat of that Fourth-of-July morning. No longer was he at school in a little town on the Hudson—he was at Saratoga in the ample park of an old hotel since burnt to the ground. As he alighted from the train and came forward under the noble trees which arched high above his head, and through which the sun played in patches on the cool broad paths, he found before him, just within the wide gates, the little girl on a visit there to her aunt. He was turned of eleven then, and she was not thirteen, as she stood before him with the sunlight sifting through the branches and gilding the refined gold of her hair. His cheeks flamed again as he remembered the shy hesitancy with which he obeyed her aunt's behest and kissed her. The little

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

maid was haughty even then, and she knew her power already; but she was affable, and she led him away to show him over the grounds, to point out the tree which she had chosen as her own, and to share his torpedoes and fire-crackers. All day long they played together, making many a delightful explosion—faint echoes only of the mighty battle which had been a-fighting in the next State for three days. Little boy as he was, the news from the field of Gettysburg stirred him, as despatch after despatch was posted on the door of the telegraph-office, where a dense ring of restless men and women were gathered, eager even for the wildest rumors; although of course he did not then know that the ticking instrument was telling the fate of a nation. When night settled down at last, and the stars came out, after he and Miriam had played together all day joyously, there was good news from the front, and cheer after cheer broke from the strained throats of the throng. Then fireworks of surpassing splendor were set off in the grounds among the tall trees. A youthful voice from the piazza started the stalwart chant of "John Brown's Body," and it was taken up instantly by the compact hundreds of men and women. Conscious of excitement and emboldened by the confusion and the darkness, he tried again to kiss the little girl, but she slipped through his hands and slapped his face. As the man sat alone in his quarters, with the newspaper clinched in his hand, he felt once more the blow which had fallen on the boy's cheek. It was a sweet memory; and a lad's affection feeds on struggle and rebuff. Douglas knew that his love for Miriam had grown with the years, as the boy grew to be a youth.

The days sped and the months; and it was years before Robert and Miriam met again in friendly intimacy. They were in Rome; he was a boy of fifteen, tall enough to think himself wellnigh a man. She was almost seventeen; her aunt's friends had ceased calling her Miriam—she was now Miss De Ruyter. She had been a very pretty child and she had become a beautiful girl; and she delighted in the exercise of her power. Toward Douglas her demeanor varied; more often than not it was as imperious as might become a young lady who tolerated an awkward boy. Sometimes she gave no heed to him as she rode her pony to the meet on the Campagna, sitting erect in her saddle, her lithe figure revealed by the tight black habit. Sometimes she was glad to have him with her, and the two young Americans would go forth together to see the wonders of old Rome, rambling through the ruined baths of Caracalla, where the broken walls, steeped in wintry sunshine, were joyous with the echoing laughter of unthinking youth; or clambering to the top of the mighty dome of St. Peter's, where they brushed against Papal Zouaves, servants of the church militant, and heard the bugle-calls of the French cavalry who were there to protect the person of Saint Peter's successor.

The last day of the carnival was her last in Rome; it was Shrove-Tuesday; and that evening, after the final race of the riderless horses from the grand-stand in the Piazza del Popolo, came the sport of *mocoletti*. The Corso was dotted with flaring tapers, which came and went like fire-flies. The game was to puff out your neighbor's while keeping your own alight. With a Yankee boy's ingenuity Robert Douglas had made ready a thin rope, tipped by a grapnel, and this he threw up to the side of the balcony where Miriam De Ruyter was talking with old Prince Castellamare. Up the rope he climbed, hand over hand, with his tall taper stuck in his hat, and when his foot was firm on the rail she had not seen him yet. A light puff of his breath over her shoulder, and her candle was out. She turned with a start—and he handed her his taper to replace the one he had extinguished. Mrs. De Ruyter asked him to join them, and from the high balcony he could see far up and down the Corso where the lights were fewer already and waning away. The moon had risen, and it flooded the street with its molten silver. Robert heard the old Prince tell Mrs. De Ruyter that if she wished ever again to return to Rome she must go that night to the Fountain of Trevi and drink of the running water by the moonlight. The old lady asked Robert to go with them; and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

so it was that the boy, who was not yet a man, and the girl, who was almost a woman, stood side by side before the broad basin where the fountain of promise was flashing in the moonbeams, and together they drank the water held in the hollow of their hands. It was then that he had said to her with boyish frankness, "When I am twenty-one, of course, I shall ask you to marry me." She turned sharply and faced him as he stood before her in the moonlight by the trembling water; but she made no reply. The enigmatic look she gave him he could never forget, and for years he pondered its meaning in vain. Before he could speak again, her aunt called her and they drove back to the hotel, and in the morning she was gone. As Robert Douglas recalled every incident of that happy evening of youth and hope, he thought that for one of them at least the promise of the Fountain of Trevi had been kept; although he knew he should never return to Rome she had gone back again to the Eternal City, for joy and for sorrow and for the last time.

It was in Paris that Robert Douglas next met Miriam—it was in Paris, on the day when the empty empire came to nought—on the evening of September 4, 1870. He was standing idle and impassive in the Place Vendôme, where the column of the great Napoleon towered high over the mob which had just spurned forth Napoleon the Little, when he was swept along by the tumult of men and boys, arm in arm, harshly chanting the "Marseillaise," and exultingly shouting forth the chorus of a popular song of the hour, "Si c'est de la canaille, eh b'en, j'en suis!" In the main the mob was good-natured enough, although the ground-swell of brutal destruction was to be detected even then. After nightfall he stepped almost into the midst of a band of singers on the Boulevard Montmartre, rougher than most of those that had gone before, and more boisterous. The men in blouses were swarming about an open carriage in which sat a frightened old woman and a girl as calm as she was beautiful. Robert knew them at a glance, and he sprang forward to the wheel of the vehicle. "Criez donc 'Vive la République!'" yelled a hoarse-throated and bulky brute almost in the old lady's ear. She sank back on the cushions, trembling violently and with her hands raised to her head. "Mais, certainement!" cried Robert, jumping on the step of the carriage; "we are friends of France—we are Americans of the United States—Vive la République!" Then he gave the driver a sharp word of command, and as the crowd shouted in response to his cry, the horses plunged ahead and they were clear of the throng. In a moment more they turned into the peace and quiet of a side-street. Mrs. De Ruyter was profuse and incoherent in her thanks. Miriam held out her hand, and the pressure of her fingers tingled to his heart.

"The curs!" she said; "they did not dare to rise against the Emperor until he was defeated by the Germans." All day had Douglas been rejoicing at the downfall of the crowned impostor, but none the less did he feel the heat of this speech. Miriam had shown no sign of trepidation when the violent ruffians were surging about the carriage. With perfect self-possession she had been trying vainly to sustain her aunt and to transfer to the old lady a little of her own fire and strength. Now, as she spoke, there came into her face a look of regal scorn; she had an expression like that of the fair aristocrats as they were going to the guillotine in 1793.

Two days later Robert Douglas aided Mrs. De Ruyter and her niece to quit Paris, and he went with them on one of the last trains to leave the unfortunate city before it was beleaguered by the Prussians. Since then he had not seen Miriam at all—and only twice had he heard from her. When his father, too feeble to battle longer with misfortune, gave up the struggle and laid him down and died, she wrote him first, from London; and hers was no barren epistle of condolence, but a womanly letter, full of feeling, abounding with sympathy. She clasped his hand across the Atlantic. There was a frankness about the letter which was almost affectionate. The words were simple, but behind them there was almost an invitation to speak out. Then, at least, Robert had no right to speak—so he thought. He was poor, and there were debts that he must pay by his labor. She was rich, and used to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the society of dukes and princes. He felt that it would be wrong and selfish for him to ask her to share his garret and his crust. If fortune should smile on him, as he was determined that it must, then he would speak out and empty his heart and lay bare his soul before her. They were young—he was barely twenty-three; they could wait—they *must* wait. At that time it was simply impossible for him to say a word. So he held his peace; he answered her letter, and there the correspondence rested.

For a year or two he did not hear from her again, but he heard about her unceasingly. The newspapers were frequent in praise of her beauty, and they were loud in reporting her success in English society. London correspondents of the American newspapers gave brilliant pen-portraits of her. Her photographs, even, were to be purchased at a shop in Broadway; Robert Douglas seeing one in the window had gone in indignantly and bought them all. One Sunday morning a cable-message in the *Gotham Gazette* announced that she was to marry an English duke; then Robert came near writing again. But before he had made up his mind there followed an authoritative denial. After all, he asked himself, what warrant had he to question? He had no home to offer her. His struggles were as hard as ever, and they were no nearer a triumphant termination. His heart was full of her; he could recall every word of their brief interviews in the past ten years; she beamed on him at the end of his vista of hope. But he said nothing—there was nothing for him to say.

Then, suddenly, one summer day, there came the announcement of her approaching marriage to the young Prince Castellamare, the eldest son of the Prince Castellamare with whom she had been talking on the balcony of the Corso on the night of Shrove-Tuesday, 1867, when Robert Douglas climbed up to blow out her taper and to offer her his own. As he sat silent in his quarters in the fort in the Far West, with the storm wailing outside, he remembered his effort to disbelieve this rumor and to expect that it would be denied like its predecessors. But by the chill in his heart he knew better. Hope stiffened and froze, as private letters to friends in New York from friends in Europe soon confirmed the public report. The day when Robert first felt the conviction of the truth of the announcement he could not forget—it was a day of torrid heat in the very centre of a New York midsummer, yet he shivered and his skin shrank as no midwinter blizzard in the West had ever affected him since. And he burned also on that day as Sahara would not scorch him; and he reeled under the blow like a man with a sunstroke. By that time he had paid off his father's debts, and it was but a question of months before he might feel the ground firm under his feet; all at once the earth trembled under him and opened as if to swallow him up; of a sudden his incentive was gone; he had labored for nought.

The newspapers described the beauty of the American bride and extolled the lineage of the Italian bridegroom; it was a love-match, they said, and not the sordid bargain in which the woman's money was bartered for the man's title. Prince Castellamare was as wealthy as Miss De Ruyter; he had no need to sell himself; if he married an American girl it was because he loved her. And if she married him, no doubt, it was because she loved him; she had had offers as good in England and in Germany and she had refused them; she had chosen well, they said moreover, for the prince was a handsome fellow, honest, open-hearted, and charming as only an Italian nobleman may be nowadays. In due season the wedding-day was fixed and the date was telegraphed under the Atlantic to America, with detailed descriptions of the *trousseau* and the *corbeille*. Robert Douglas sought out a wedding gift: he had a jeweller copy, in gold, the brass button of the military school where first he met her, and in this there was cunningly contrived a space for a tiny watch of exquisite workmanship. He sent her this simple trinket with a brief wish for her happiness. Then for a few weeks he went about his daily task with a stab at his heart and a hatred of each day as it dawned.

A fortnight after the wedding there

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

came a letter to thank him for his gift, so beautiful and so aptly chosen, and to tell him that she had not forgotten her friends in America, although some of them had almost forgotten her, to judge by their prolonged silence. In conclusion, she wrote to him that should he ever come to Rome she would be very glad to see him—and so would the Prince, with whom she had often talked about Mr. Douglas, and who knew that Robert had gone with her when she drank of the waters of the Fountain of Trevi, which had brought her back to Rome.

When he had read this final letter an overwhelming sense of loneliness swept over him. The light had gone out of his life—the hope for which he had lived was dead. There was no use in repining; a strong man does not die of a broken heart. Work there is in plenty in the world for a man to do, if he be but willing. A chance came in his way to get steady employment at hard labor with the risk of death—and he snatched at it greedily. The President of the United States had just then the right to appoint a certain number of extra second lieutenants, and by the aid of an old friend of his father's, who was also an old friend of the President's, Robert Douglas secured one of the commissions. That was why this Christmas found him at Fort Roosevelt, on the plains, in a blizzard. And these were the memories that passed before him as he sat in front of the fire, upright and rigid.

At last he raised the newspaper, still clinched tightly in his fingers, and again he read the paragraph. It was a telegram from Rome, and it told the startling shock given to Italian society by the sudden death of the young Princess Castellamare, formerly Miss Miriam De Ruyter of New York, one of the many noted beauties of the New World who had married nobles of the Old World. The telegram continued with the assertion that the match between Miss De Ruyter and Prince Castellamare had turned out more happily than most of the international alliances between youth and beauty on one side, and an old title on the other. The Prince and Princess were notoriously devoted to each other. The Prince is now inconsolable. The Princess died very unexpectedly. She had been ailing a little for a day or two, but she persisted in going to the costume ball at the Quirinal, where she represented "America," resplendent with diamonds and radiant with youth and beauty. She was forced to go home before the ball was over—and in less than twenty-four hours she lay cold in death. She left no child. Her memory will be pleasantly cherished in the American colony in Rome, where there is abundant testimony to her untiring affability and to her unfailing generosity.

When Robert Douglas had finished rereading this paragraph of the cable despatch he drew a long breath. Then he folded the newspaper carefully. For a moment he sat with the flat roll in his hand. At last he arose and walked to a corner of the room where a travelling-desk lay on the top of a rough board table. Lifting the lid of the desk, he put away the newspaper by the side of a little bundle of letters and a packet of photographs. Then he turned away and stood by the window looking out into the welter of the tempest. The mournful moan of the wind sounded in his ears like a solemn requiem. The house shook with the stress of the storm and he rejoiced at it. This war of the elements was in consonance with his feelings.

How long he stood there at the window staring at the storm and marvelling at its might—if, indeed, he saw it at all—he did not know. But he was roused from his reverie by the sudden inroad of the comrade who shared his quarters.

As Paulding Van Dyke broke into the room he cried:

"If that tenderfoot who didn't know the difference between a Montana chinook and a Dakota blizzard were here now he would find out to-day, pretty dern quick!"

Robert Douglas turned slowly, like one awakened from sleep.

"Are you ready?" Van Dyke asked, hurriedly.

"Ready for what?" inquired Douglas.

"Don't you know?" returned Van Dyke. "Two of Pike County Pete's kids are out somewhere in the storm. We

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

must get them in at once or the poor little devils may be frozen to death."

"How do you know they are lost?" was the question Douglas asked, as he put on his heavy overcoat and placed a flask of brandy in one of its pockets.

"The man you sent down to the cabin this morning with those things you offered, when Lucy told you about the scantiness of their supplies——"

"George Gordon?"

"Yes—he's just back now. It has taken him two hours to get here through the blizzard. And he brings word that Pike County Pete's old woman is almost wild with fear because the two kids strayed out before the storm began——"

"Then there's no time to lose," Douglas interrupted. "Have you called the men?"

"I asked for volunteers, and there will be a dozen or more of the boys ready as soon as we are. I told them to get on all their extra coats—this blizzard cuts like a sand-blast."

Robert Douglas opened the case of a compass, examined it hastily, and then put it in the pocket of his great-coat. He lighted two lanterns and gave one to Van Dyke. From the wall he took down a coil of rope, a hundred feet long, with a loop at every ten feet.

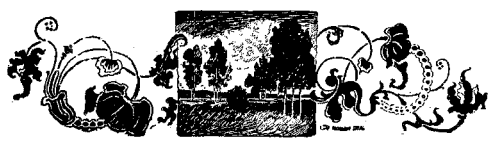
Then Douglas and Van Dyke passed out into the quadrangle where they found a group of soldiers awaiting them. The officers chose nine men. Taking the opposite ends of the rope themselves, they bade the nine men each take a loop. Thus fastened together in a line a hundred feet long, so that they might sweep the plain, they went forth into the night to rescue two little children.

And as they left the fort behind them, and bore down toward the bank of the river, the storm howled and roared like a strange wild beast, starved and resistless with hunger.

NOCTURNE.

By Louise Imogen Guiney.

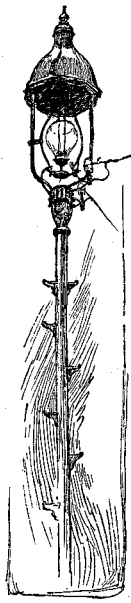
The sun that hurt his lovers, from on high
Hath fallen; she more pitiful is nigh,
The blessed one whose beauty's even glow
Gave never wound to any shepherd's eye.
Dear, wilt thou not thine earth-born music render,
And once console her in her lonely sky?
Sing! for the water-golds are deepening now,
There is a hush upon the beechen bough;
She shines the while on thee, as saint to saint
Sweet interchanged adorings may allow:
O sing, heart sovereign-strong and lily-tender!
They are so like, the holy Moon and thou.



PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ELECTRICITY IN LIGHTING.

By Henry Morton.



IT was, we think, in reference to some electrical experiment, that Benjamin Franklin made his often quoted and most suggestive answer to the question, What is the use of it? by another question, What is the use of a baby? and nothing has better illustrated the way in which scientific discoveries, like babies, can grow into usefulness than has electricity in its various developments and applications, among which by no means the least is that to electric lighting.

Indeed this scientific infant, whose birthplace may be said to have been Sir Humphry Davy's lecture-room in the Royal Society, has not only developed into vigorous youth and useful manhood, but has also produced an extensive family of descendants, so wide-reaching and diverse in their characteristics that they must be discussed under numerous heads and various classifications, and have in many cases little in common with the founder of their family, except that electricity is the form of energy which vitalizes them, and that light is the result and evidence of their vitality.

Sir Humphry Davy in 1808 showed on a grand scale, with a galvanic battery of some two thousand pairs of plates, that when an electric circuit, established between two pieces of charcoal, was gradually interrupted by their separation, an arch or arc of dazzling light was developed between the separated pieces of carbon.

The magnificent intensity of this light attracted to it the attention of the world, and dreams as to its utility and applications were freely indulged in by many possessed of lively imaginations, but for many years there seemed little prospect that any of these dreams would be realized.

The radical and fatal difficulty was the cost of the electric energy required. Numerous improvements were made in the galvanic battery, by which its constancy of action and compactness as to bulk and weight were improved; but it always remained, and remains to-day, that the cheapest source of energy available in a galvanic battery is metallic zinc, and that metallic zinc is a costly material, with a low efficiency as compared with other substances, such as carbon or carbonaceous compounds, usually employed in the production of light. Left to the galvanic battery, therefore, the electric light, brilliant as were its capacities, would have been confined to the lecture-room of the professor and an occasional display in the theatre or opera-house, or out-of-doors on rare occasions, such as peace illuminations or national anniversaries.

In one direction much labor was spent and much improvement was made; that is, in the structure of "electric lamps" or "regulators" for the electric light.

When the electric arc is formed between the carbon terminals it causes them not only to glow and actually burn, but also to be vaporized and dissipated, so that they are consumed with considerable rapidity, and this, too, at an unequal rate, the positive terminal consuming much faster than the negative one. To provide for this, means of feeding the carbons (which for this purpose were made in the form of long cylindrical rods of the most compact and refractory kinds of carbon, such as plumbago or gas-coke) toward each other as they were consumed must be provided.

Very ingenious and efficient "lamps" or regulators were constructed at an early date. There is one now in the cabinet of the Stevens Institute of Technology, Hoboken, N. J., which was imported some time prior to 1853, and used in some of my public lectures more than twenty-five years ago. It was designed by the eminent French physicist Foucault, and constructed by the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

widely known instrument-maker Duboscq Soleil, of Paris.

Lamps similar in general principle, but different in their mode of operation, were made by Deleuil, Serrin, and Duboscq in France; by Roberts, Slater & Watson, Staite, and Chapman in England; and, indeed, as far as anything that could be done with galvanic batteries was concerned, there was nothing to be desired as regards perfection and efficiency in the electric lamp or regulator of the electric light.

This child of Sir Humphry Davy had reached his full growth and intelligence, and had attained not only a brilliant but a well-regulated manhood. His usefulness to the world at large, however, as I have already pointed out, was limited by the costliness of the apparatus by which his vital energy was supplied. Having thus, after the manner of the novelist, followed one of our characters up to a position of difficulty, we will turn in another direction and look after the other who is to relieve the situation.

Again we have the birth of a great scientific discovery, and this time it is in the laboratory of Michael Faraday at the Royal Institution.

Here magneto-electric induction first saw the light, and it was first demonstrated that an electric current could be produced, without any galvanic or chemical action, by the mere motion of a conductor before a magnet.

The theory and detailed conditions of this action were fully explained by Professor Brackett in the June number of this Magazine (p. 653), and I will therefore say nothing of these, but pass at once to the practical application of this great discovery, which was soon made, and which, through a number of developments, has culminated in the dynamo-electric machine of to-day, which turns the mechanical energy of a steam-engine, of a waterfall, or of any other like motor, into an electric current, and thus enables us to secure electric energy from cheap and highly efficient coal or the like, instead of seeking it in costly and inefficient zinc.*

The first development of Faraday's discovery was made by Pixii, of Paris, who, in 1832, constructed an apparatus in which a large steel magnet was rotated so that its poles continuously and successively swept past those of an electro-magnet, or U-shaped bar of soft iron whose ends were surrounded with coils of copper wire.

This motion generated in the copper wire rapidly alternating electric currents, which were "commutated" or made to pass out of the machine in a constant direction by a simple "commutator" on the axis of the revolving magnet, which shifted the connections each time the direction of the current was changed.

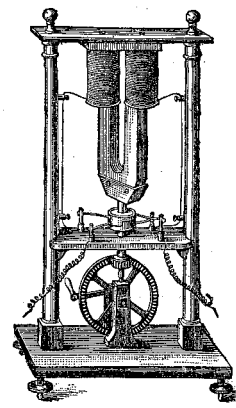


Fig. 1.—Pixii's Magneto-electric Machine—1832.

The machine of Pixii is shown in the accompanying Figure 1.

In this, near the top, are seen the copper-wire coils wound on cores of soft iron like thread on a spool. Immediately below these is the permanent magnet, of a U-shape, and so supported that it can be rapidly rotated about a vertical axis midway between its poles, so that each pole is caused to approach, pass, and recede from, in succession, each of the iron cores of the coils. Immediately below the bend of the U-magnet are the commutator segments, pressed upon by the contact brushes, and below these again is the gearing by which the magnet is made to rotate.

Machines operating on the same principle, but varying in construction (as, for example, by rotating the electro-magnet or coils of copper wire while the steel permanent magnet remained stationary) were brought out by Saxton, of Philadelphia, in 1833; by Clark, of London, in 1834; and by Page, of Washington, in 1835.

None of these machines, however, were of sufficient size to be available for the production of a practical electric light, although they all exhibited a capacity for this effect on a minute scale.

* The total efficiency of a pound of zinc is only one-sixth that of a pound of carbon.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The first magneto-electric machine of a magnitude sufficient to operate a practical electric lamp was that produced by the united labors of M. Nollet, Professor of Physics at the Military School of Brussels, and his assistant constructor, Joseph Van Malderen, under the auspices of a corporation composed of

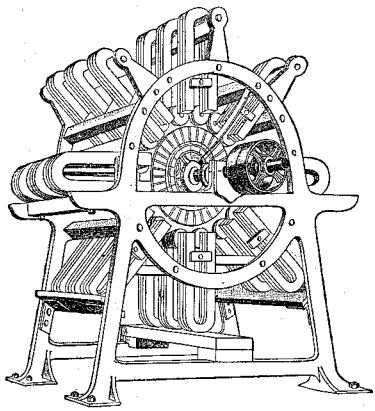


Fig. 2.—An Alliance Dynamo used in the South Foreland Lighthouse, 1858.

French and English capitalists and known as the "Alliance Company."

Strange to say, this machine was built with the absurd object of using it to decompose water and employ the resulting gases in the production of light.

This machine, with some modifications by Mr. Holmes, of England, was, under the superintendence of Faraday himself, introduced into two of the English light-houses, *i.e.*, at South Foreland and at Dungeness. Its preliminary trial was made in 1857. The electric light was first thrown over the sea from the South Foreland on the evening of December 8, 1858, and from Dungeness on the 6th of June, 1862.

Figure 2 shows in outline one of the Alliance machines, as modified by Mr. Holmes, which was long since put in operation at the South Foreland Light-house.

The outer framework supports twenty-four compound steel permanent magnets, and a drum inside carries thirty-two armatures or spools of copper wire wound on iron cores. As these pass from pole to pole between the magnets, currents are developed which are carried off by commutators on the farther end of the shaft, not shown.

The electric light was not introduced into the French light-houses until December 26, 1863, when it was installed at La Hève, near Havre. It was also used for lighting works of construction, such as the Cherbourg Docks, and on some vessels, for example, on the Lafayette and the Jerome Napoleon.

Although Faraday lived to see the little spark, which he had developed from a magnet and coil of wire in his laboratory, grow into these magnificent illuminators of sea and land, it was not until after many years and numerous new developments that the electric light approached the commercial utility which it to-day possesses.

These Alliance machines, on account of their great size and multitude of parts, were very expensive. Thus the two machines placed in the Dungeness Light-house, with their engines, appliances, and lamps or "regulators," cost £4,760, or nearly $24,000. The two located at Souter Point in like manner cost £7,000, or about $35,000, and the machines and accessories for the two lights at South Foreland cost £8,500, or about $42,500. The same characteristics caused them to be liable to accident and injury and costly in repairs. The world therefore waited for some further development before it could enjoy generally the advantages of electricity as a means of illumination.

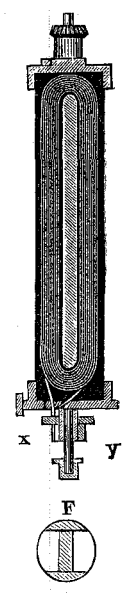


Fig. 3.—Magneto-electric Machine of Dr. Werner Siemens.

The first of these came when Dr. Werner Siemens, of Berlin, constructed a machine in which the revolving coil or armature was made of the form shown in Figure 3, and was entirely enclosed between the ends of the permanent magnets. To construct this armature a long, solid cylinder of soft iron is taken, and two deep grooves are cut on opposite sides through its entire length, so that its cross-section is such as appears at F in

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the accompanying figure. Insulated copper wire is then wound lengthwise in these grooves, its ends being united to the sections x, y, of the commutator. Journals on which this armature rotates are provided at either end, and at one end also a pulley by which it may be driven by a belt.

This armature secured a great concentration of action, by bringing the revolving armature into a highly concentrated field of magnetic force and allowing it to have a very rapid angular velocity of rotation. But the chief value of this improvement consisted in its serving as a step toward another, which was most remarkable in its results and excited the liveliest interest all over the world when it was announced. This next step was taken by Wilde, of Manchester.

He took a small magneto-electric machine, such as had been constructed by Siemens, and carried the current from its commutator to the coils of very large electro-magnets, which constituted the field-magnets of a similar machine, which, however, differed from the other, or Siemens machine, both in size and in having its field constructed of electro-magnets in place of permanent magnets.

Figure 4 shows such a combination, in which the first or small magneto-electric machine is mounted on the top of the other, and sends the current from its commutator through the coils of the electro-magnet below, between whose expanded poles another Siemens armature is made to revolve.

Under these circumstances the current developed in the armature of the upper machine, by its permanent steel magnets, will develop a more than tenfold greater magnetic force in the poles of the electro-magnet of the lower machine ; and the second armature, rotating in this powerful magnetic field between the poles of this large electro-magnet, will develop a more than tenfold greater current than that of the smaller machine.

This method of multiplying or creating magnetic force was a wonderful discovery, and, combined with the use of electro-magnets in place of permanent magnets for the production of the magnetic field, gave an important increase in power and efficiency to the machine ; for, as compared with permanent magnets, the power of electro-magnets is vastly greater.

This advance, made by Wilde on April 13, 1866, was quickly followed by another, made almost simultaneously in Europe by Varley, Siemens, and Wheatstone, and nearly a year earlier in this country by Mr. M. G. Farmer, whose work in another department of electric lighting we shall have occasion to mention farther on.

This development may be indicated by the term " self-exciting," and consisted in the discovery that if the commutator is so connected with the coils constituting the field magnets that all, or a part of the current developed in the armature will flow through these

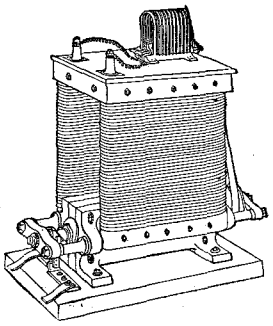


Fig. 4.—The Wilde Machine.

Small machine or feeder, with permanent magnets on top ; large machine, with electro-magnets yielding available current below.

coils, then all permanent magnets may be dispensed with, and the machine will excite itself or charge its own field magnets without the aid of any charging or feeding machine such as the little one shown in Figure 4.

There is in all iron, unless special means have been taken to remove it, a little magnetic force. This small magnetic force, called " residual magnetism," in the iron cores of the field magnets will produce a little current in the armature when it is revolved. This current flowing through the coils of the field magnets will increase their magnetic force, and thus cause them to develop more current in the armature, which in turn, flowing through the coils of the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

field magnets, will further increase their magnetic force, and so on until a maximum, determined by the structural conditions of the machine and the amount of driving force applied to the pulley of the armature, is reached.

In practice such machines are each complete within themselves. When started they develop for a few moments only very feeble currents, but within a few seconds they "wake up" by degrees, and reach their maximum in less time than it takes to read this paragraph.

One other radical improvement in dynamo-electric machines remains to be recorded, namely, that due to the French inventor Gramme.

The essence of this lay in the structure of the armature. While previous to Gramme all armatures had been constructed either like spools of cotton or like balls of yarn wound on blocks, he made his armature by starting with an iron ring (itself consisting of a coil of soft iron wire) and winding the copper wire on this by passing the end of the wire again and again through the ring. A Gramme armature ring, cut and bent out partly, and with some of its copper coils removed, is shown in Figure 5.

The cut ends of the iron wires constituting the ring-core are shown at A, and B shows a portion of the copper-wire coils wound around this ring-core. The copper wire is continuous through-

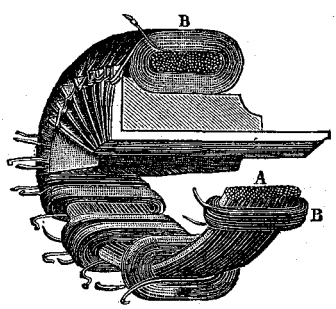


Fig. 5.—Section of a Gramme Armature Ring, showing its construction.

out as regards its electric connection, but at frequent intervals a loop of this wire is carried out and attached to a segment of the commutator.

This armature being rotated in a magnetic field (*i.e.*, between the poles of powerful field magnets) tends to deliver a substantially continuous current to "brushes" touching the commutator segments at points midway between the poles of the field magnets.

Théophile Gramme.

It will be remembered that the iron ring constituting the core of the Gramme armature was made of iron wires, and not of a solid piece or ring of iron. The object of this was to prevent the formation of electric currents in this ring-core itself, commonly called Foucault currents, which would be a cause of inconvenience by heating the armature and of loss by wasting energy in the useless production of this heat.

The Siemens armature had no such provision, and accordingly very serious difficulties were experienced in the running of machines using such armatures, by reason of the intense heat there produced. Arrangements were in fact made in many machines to relieve this symptom by running cold water through the armature, made hollow for that end; but this did not cure the disease, or prevent the loss of efficiency caused by the conversion of the driving energy into useless heat in place of useful current.

The desirable end was, however, soon secured by "laminating the armature core," that is, making it up out of a great number of thin sheets of iron insulated from each other and held together by one or more bolts. The building up of such an armature core is illustrated in Figure 6.

The merit of this invention appears

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to have been assigned by the U. S. Patent Office to Mr. Edward Weston, of Newark, N. J., who on September 22, 1882, filed an application in the U. S. Patent Office describing such a laminated armature core, for which two patents were granted, April 16, 1889, being Nos. 401,668 and 401,669.

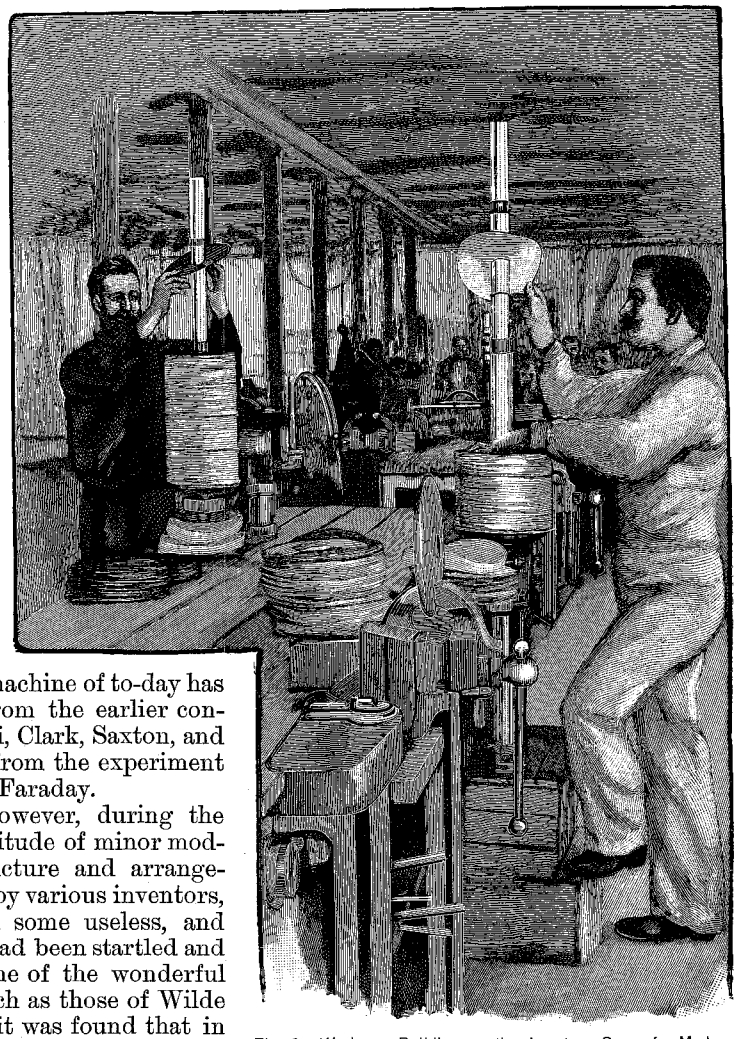


Fig. 6.—Workmen Building up the Armature Core of a Modern Dynamo.

We have given above all of the radical steps or improvements by which the dynamo-electric machine of to-day has been developed from the earlier constructions of Pixii, Clark, Saxton, and Page, or, in fact, from the experiment and discovery of Faraday.

There were, however, during the same time, a multitude of minor modifications of structure and arrangement introduced by various inventors, some useful and some useless, and when the world had been startled and interested by some of the wonderful developments, such as those of Wilde and of Gramme, it was found that in some forgotten patent or other publication some description might be read more or less completely anticipating these important discoveries.

We have not attempted to follow out the subject in this relation, which, however important in its legal consequences, as affecting the rights of patentees, is not a part of the general history of the actual development of the electric light which we have attempted to write.

An endless variety has also been given to the forms and arrangement of the more recent dynamo-electric machines manufactured by the various companies, but these it would likewise be impossible for us to discuss within the limits of a magazine article.

I will therefore select a typical case, and give some account of its mode of construction.

The most difficult and important part of the structure is the armature, and in building this the first thing is the laminated iron core. For this purpose an immense number of thin disks of sheet iron are cut out, each having a central hole to admit the shaft, and several other holes for the bolts which are to hold the series of disks together, so as to make of them a solid drum. These disks are then piled one upon another around the iron shaft which is to form the axle of the armature, as shown in

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Figure 6, and thick iron end-plates are applied at either end and bolted together by iron bolts going through from end to end. The drum or cylinder thus formed is then mounted in a lathe and turned to a smooth surface, except for such projections as may be left for guides in winding-on the copper wires.

Fig. 7.—Winding an Armature.

This is the next operation to be performed, and is shown in Figure 7, which represents the winding of a large armature intended to produce a very heavy current, and therefore wound with thick wire.

The workman in front is drawing the insulated copper wire down from a drum overhead and passing it lengthwise around the armature-core, which is supported by its axis in a lathe, while another workman assists him in pressing the wire accurately into place and keeping it close to the core. This wire is not wound on continuously, but in a number of short sections whose ends are seen sticking out somewhat irregularly. These ends are to be attached to the successive sections of the commutator which is presently to be passed over the end of the shaft, appearing at the left.

Figure 8 shows just such an armature as that in Figure 7, but finished and turned the other way, so that though the position of the observer is reversed he still sees the commutator end of the armature turned toward him. The numerous radiating lines at the nearer end of the drum are parts of the commutator-sections, which are attached at their outer ends to the successive coils of wire on the armature. At their nearer ends these radial bars bend at right angles, so as to pass along the surface of the shaft, being insulated from it and from each other by mica or other appropriate substance.

The workman in this figure is engaged in putting on the last turns of

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

binding wire, which is wound in several bands, as shown, around the armature, not for any electric action but to hold the coils, which run lengthwise round the drum, firmly in place and prevent them from being spread outward by centrifugal force when the armature is in use. These binding wires are made of German silver, a bad conductor for a metal, and are thoroughly insulated from the copper wires of the armature.

The armature, having been thus constructed, is now ready to be mounted in the framework of field magnets, which has been constructed in another department of the factory.

This is shown in Figure 9, and consists of a massive framework of cast-iron, portions of which are surrounded with coils of insulated copper wire so as to make the central parts of the upper and lower horizontal masses respectively north and south poles.

It is in the cylindrical hollow between these that the armature rotates, one end of its shaft being supported in the journal-box seen at the right, while the other end is supported in a journal-box out of view on the other side of the machine.

The adjustable supports to hold the brushes, or elastic strips of copper which press against the commutator and take off from it the current generated in the armature, are then attached to the sides of the bracket which carries the nearer end of the shaft, and the machine is substantially complete, the driving pulley being of course attached, when needed, on the farther end of the shaft.

Figure 10 shows this same machine completed in all respects, with the armature inserted, the brushes in place, and the driving pulley on the farther end of the shaft.

The dynamo-electric machines of Weston, of Edison, of Brush, of Thomson-Houston, of Westinghouse, and a dozen others are all constructed (with considerable variations in form and detail), in the manner above described, and by their aid mechanical energy can be transformed into electric energy with an economy entirely unparalleled by any transformation heretofore known to the arts. Thus in the steam-engine we may, under very favorable conditions, transform ten per cent. of the energy of the fuel into mechanical energy, but under the average working conditions we only secure about five per cent., the other ninety-five per cent. being lost.

In the dynamo-electric machine, on the other hand, it is very common to secure a transformation of eighty per cent.

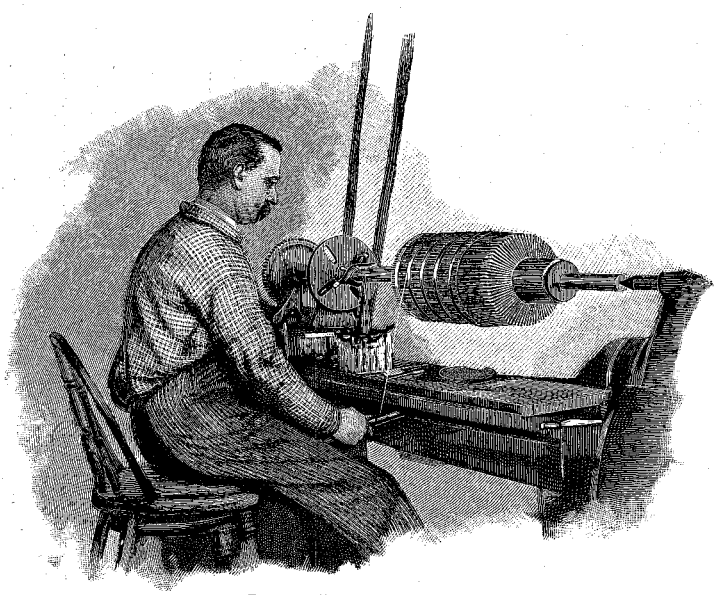


Fig. 8.—Finishing an Armature.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of the mechanical energy, applied to the driving pulley, into electric current, and in many cases as much as ninety per cent. is so transformed and only ten per cent. is lost.

Cheap electricity having been thus secured by the development of the dynamo-electric machine, the electric regulator or lamp acquired a new importance, and new demands were made upon the inventive genius of the world on its account.

As long as expensive batteries were the only sources of electric energy, it was considered quite enough to operate one lamp at a time; but when the great capacities of the dynamo-machine were to be realized, it became clear that for economical working many lamps must be operated from one machine, and, if possible, in a single circuit or one after the other. For this the old regulators

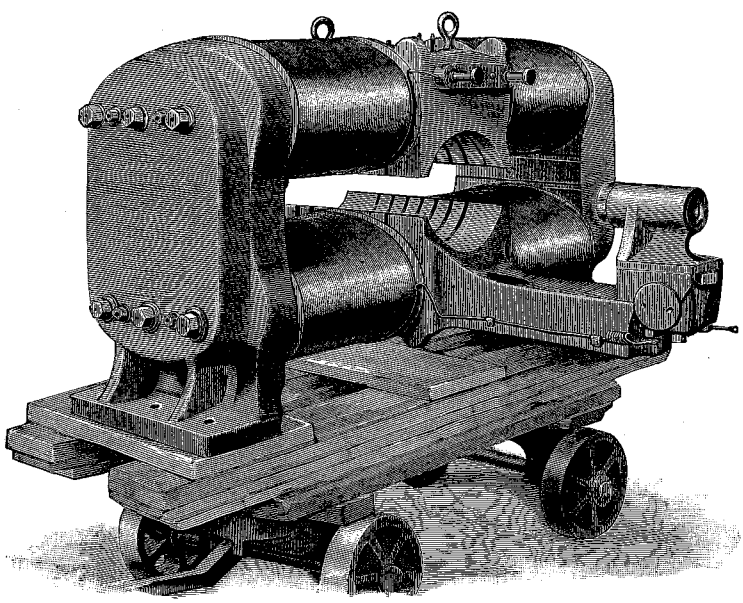


Fig. 9.—Field Magnets and Frame, without armature.

were not adapted. They all operate in the following general method:

The current which supplies the lamp passes through an electro-magnet which controls a clock-work or other mechanism which allows or causes the carbon poles to approach each other whenever the strength of the current is reduced. As soon, therefore, as the burning away of the carbon poles causes an increase in the resistance of the arc or space between them by increasing its length, the resulting diminution of the current causes the electro-magnet to release or actuate the feeding device, until the poles are brought near enough to diminish the resistance of the arc to its normal amount.

With a single lamp in circuit this is all that is required, but it will be manifest that anything which causes a diminution in the current will cause the carbons to be brought nearer. Now suppose that two such lamps are arranged in series so that the current flows first through one and then through the other, and that, as must always be the case, one mechanism is a little (no matter how little) more sensitive than the other; then, when either pair of carbons burn away enough to diminish the total current to the point at which the more sensitive mechanism will act, that mechanism will so act, and will bring its carbons toward each other, until the resistance is diminished far enough to restore the normal current, and this will happen without the less sensitive mechanism being brought into action at all. This operation will then go on; the carbons of the less sensitive lamp burning away farther and farther, and their increase of resistance being made up by the approach of the carbons of the more sensitive lamp until the latter is extinguished by the actual contact of its carbon poles and the less sensitive lamp has secured an excessively long arc which is absorbing the entire energy of the circuit.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The same thing would happen with any number of such lamps in series. The most sensitive of the lamps would do the adjustment for all the rest, until its poles were brought into contact, and then the next in order of sensitiveness would take its turn, and thus one after the other would be thrown out of use, and the entire energy of the circuit would be concentrated in an abnormally long and probably destructive arc in the least sensitive lamp. Numerous plans were suggested to meet this difficulty, but the only ones which have reached any general practical success are those of Jablochkoff and of Brush.

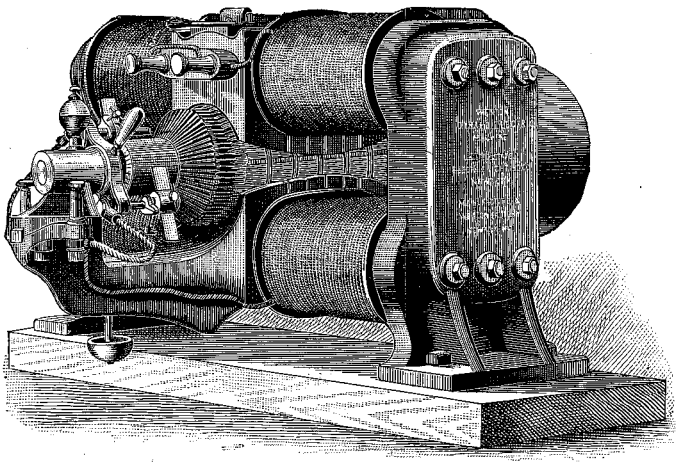


Fig. 10.—A Complete Dynamo—armature in place.

Jablochkoff substituted for the lamps whose carbons were moved by mechanisms of some sort his electric candles with immovable carbons. In these the two carbon rods were placed side by side, vertically, very near to each other, the space between being filled with plaster-of-Paris.

An arc having been established between the upper ends of the carbons by a thin strip of carbon which was quickly burned away, the same continued as the carbons consumed, because the plaster-of-Paris between them melted and volatilized as fast as the carbons were consumed. (Figure 11.)

These Jablochkoff candles were used to a considerable extent in Europe in the early days of electric lighting, but never made much progress in the United States, being very inferior in efficiency and economy to lamps arranged on the Brush or other similar systems.

The arrangement first introduced in this country as I believe by the Brush Electric Co., and now universally used in one or another modification, may be described in general terms as follows: There are two electro-magnets or coils controlling the feeding mechanism which tend to oppose each other in the motions they produce.

Through one of these the current passes which also traverses the arc of the lamp, but the other magnet or coil is traversed by a current branching from the former where it enters the lamp, and rejoining it where it passes out, but not going through the arc. This last-named coil has a higher resistance than the other, and normally transmits but a small fraction of the current as compared with that passing through the arc and the other coil.

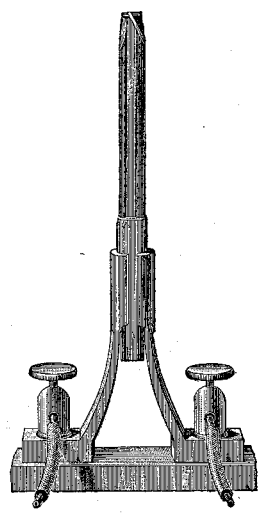


Fig. 11.—The Jablochkoff Candle.

If, now, by the burning away of the carbons, the resistance of that circuit is increased, two things happen at once: the current through the other coil, which is not in circuit with the arc, is increased at the same time that the current through the arc and *its* coil is diminished, so that the total current through the lamp remains substantially unchanged, and therefore

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

nothing which happens in one lamp has any effect on the circuit at large or on any other lamp. Also the opposite magnetic effects in the two coils cause a rapid readjustment of the carbon electrodes and a consequent restoration of the arc to its normal length.

After this arrangement had been developed by the Brush Electric Co. some old patents were discovered in which the same principle was to a greater or less extent set forth, but as in the case of the Pacinotti article and the Gramme machine, these do not seem to have had anything to do with the practical development of the art of electric lighting prior to Mr. Brush's invention.

As with the dynamo-electric machines, so with the regulators or electric lamps for arc lights, their varieties of construction are endless, but they all come under the general description of holders for the carbon rods, whose motions are controlled by feeding mechanisms which are in turn controlled by electromagnets through which the operating current flows.

Such structures have reached a marvellous perfection as regards their regularity and certainty of action. Among the thousands of lamps which light our streets and stores night after night, a failure in operation is almost unknown to the ordinary observer. Irregularities, such as are incident to the unequal burning away of the carbon points, of course frequently occur; but the extinction of a light through any failure of the mechanism of the lamp is of the rarest occurrence even where the lights are placed in the most exposed and inaccessible positions. A striking example of this was furnished in the lights erected and maintained for some time by our Light-house Department at Hallett's Point for the purpose of lighting up the difficult channel of the East River, known as Hell Gate, illustrated in Figure 13. These lights, nine in number, arranged so as to form about three-fifths of a circle, were supported at a height of two hundred and fifty feet by a light iron tower. Each light gave, by actual measurement, an amount of light equal to three thousand standard candles, or about four times the light given by the ordinary electric lights employed in streets and buildings.

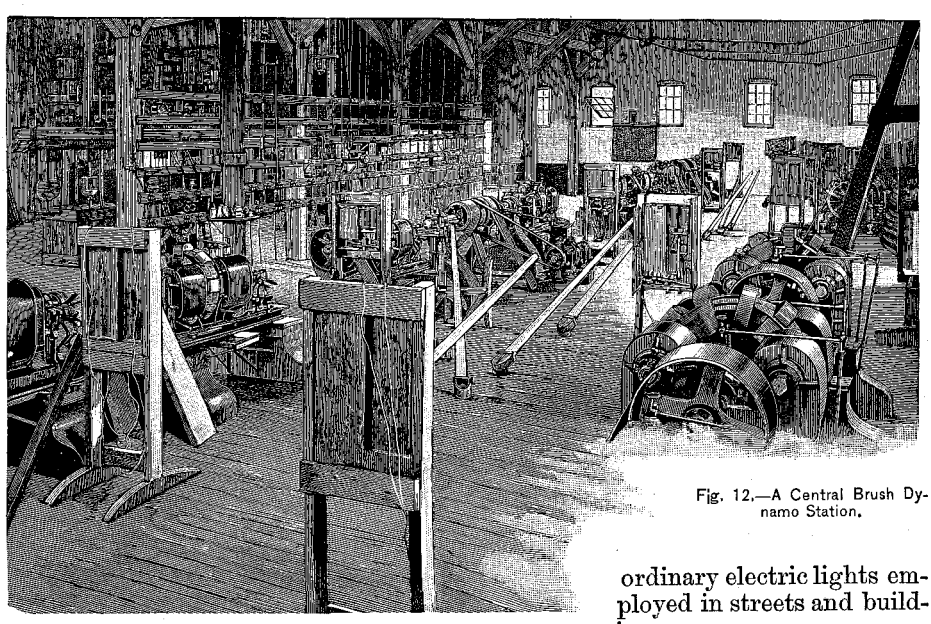


Fig. 12.—A Central Brush Dynamo Station.

These lights were put in operation on October 20, 1884, and produced a magnificent effect, lighting up the whole surrounding town of Astoria and the adjacent channel. After several years of use it was, however, decided that they did not afford the expected aid to navigation, and they were removed in 1888.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

During all these years, however, there was no failure caused by the mechanism of the lamps.

The number of arc lamps which are nightly operated by the different electric lighting companies in the city of New York is probably over five thousand, and throughout the United States it probably reaches seventy-five thousand. Assuming that these lights are worth to their users the moderate rental of fifty cents a night, this represents an output of light having a value of $11,250,000 each year of three hundred days; all earned by this one branch of the family directly descending from the baby spark born from a magnet in the laboratory of Michael Faraday.

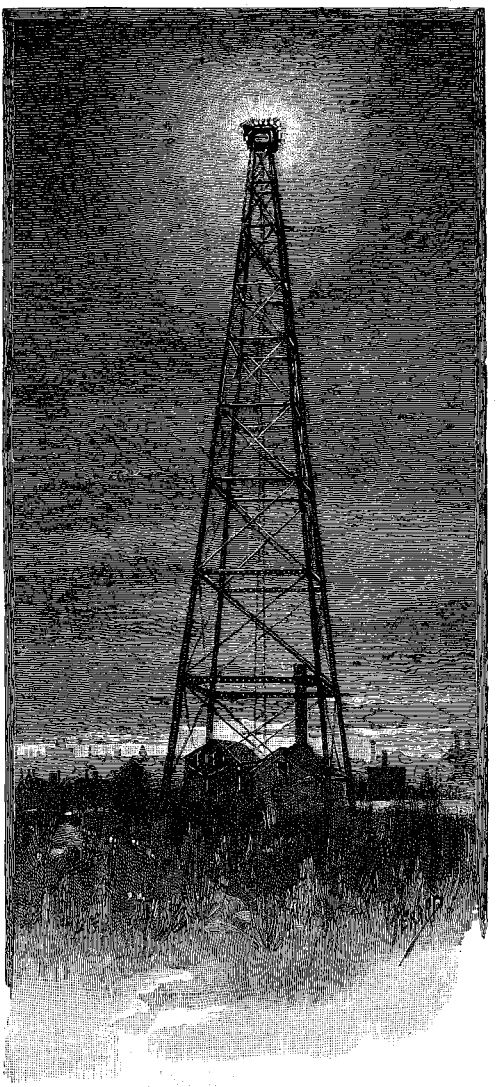


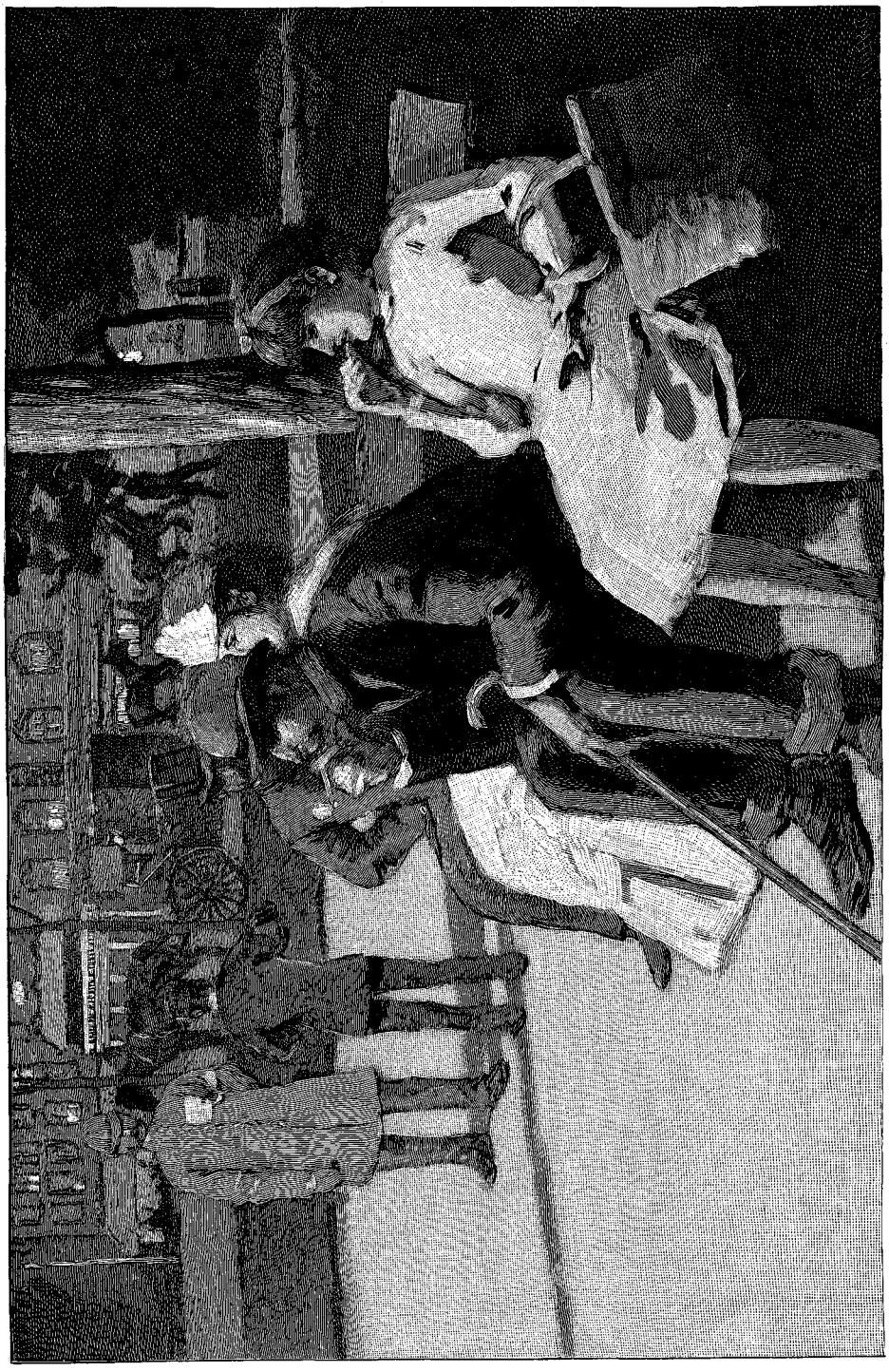
Fig. 13.—Hell Gate Light, New York, before it was abandoned.

Admirable as is the system of electric-arc lighting, for use in streets and open spaces, and in workshops or large halls, it is entirely unfit to take the place of the numerous lights of moderate intensity, employed for general domestic illumination.

For this purpose it was at a very early period perceived that the incandescence or heating to luminosity of a continuous conductor by an electric current was the most promising method. It was also at a very early period perceived that the conductor to be used for this purpose must be one which would admit of being raised to a very high temperature without being melted or otherwise destroyed. The first material which was thought of in this connection was platinum, or one of its allied metals, such as iridium, which have the highest melting-points among such bodies, and are besides entirely unacted upon by the air at all temperatures. In 1848 W. E. Staite took out a patent for making electric lamps of iridium, or iridium alloys, shaped into an arch or horseshoe form.

One of the most serious difficulties, however, even with these materials, was that, to secure from them an efficient light, it was necessary to bring them so near to their fusing-points that a very minute increase in the current would carry the temperature beyond this and destroy the lamp by fusing the conductor. An escape from the difficulty was offered by the use of hard carbon, such as that employed for the electrodes of arc lamps, but here the compensating drawback was encountered, that this substance, when highly heated, was attacked by the oxygen of the air, or, in other words, burned. To meet this, plans were devised for the replacement of the consumed carbon conductor and for its protection from the air by enclosing it in a non-active gas or in a vacuum.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



Under the Electric Light.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Thus in 1845 a patent was taken out in England by Augustus King, acting as agent for an American inventor named J. W. Starr, for an incandescent lamp, the important parts of which are represented in Figure 14.

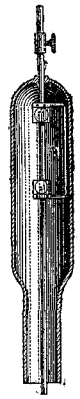


Fig. 14.—The Starr-King Incandescent Platinum Lamp, 1845.

Here a platinum wire is sealed through the top of a small glass chamber constituting the upper end of a barometer tube. This platinum wire carries at its lower end a clamp, which grasps a thin plate or rod of carbon, and also a non-conducting vertical rod or support, which helps to sustain another clamp, which grasps the lower end of the carbon strip and connects it by a wire with the mercury in the barometer tube below.

By passing a current through the platinum wire, and thence through the upper clamp, carbon strip, lower clamp, wire, and mercury, the carbon strip could be made incandescent, and was to a certain extent protected by the surrounding vacuum.

Though this lamp produced a brilliant light it proved in various respects unsatisfactory, and was abandoned after numerous trials.

Other inventors, as, for example, Konn, of St. Petersburg, continued to work with rods or pencils of hard carbon and achieved a limited success, but the irregularity and brittleness of the material seem to have been an insuperable objection and drawback, and the problem of commercial electric lighting by incandescent conductors yet remained without a solution.

This was the state of affairs even up to the fall of 1878, when, as is claimed, Mr. William E. Sawyer, in combination with Mr. Albon Man, after many preliminary experiments, produced their first successful incandescent lamp with an arch-shaped conductor made of carbonized paper. In their application for a patent, filed January 8, 1880, these inventors use the following remarkable language in their fourth claim: "An incandescing arc of carbonized fibrous or textile material." This indicates that they realized the importance of what seem to be the common features of the present electric incandescent lamps, namely, the arc or arch or bow or loop form, and the carbonized fibrous or textile material. They also specially refer to carbon incandescent conductors made from paper.

After a long and hotly contested interference the United States Patent Office has granted them a patent in which these points are broadly stated, and the merits of this patent are now actively litigated.

The lamp brought out by Messrs. Sawyer and Man, soon after their application for a patent, and described and shown in that application, was a rather large and complicated structure; and had no improvement and simplification of this structure been made, the present immense development in electric lighting would no doubt have been unattained.

It is to Mr. T. A. Edison, without doubt, that we owe many of the simplifications and modifications which, by cheapening the lamp and diminishing its weight, have extended its range of use and its usefulness to a remarkable degree.

On his return in the fall of 1878 from the Far West, where he had gone in company with Dr. and Mrs. Henry Draper, Dr. George F. Barker, and the present writer, to observe the total solar eclipse of that year, Mr. Edison visited the shops and laboratory of Mr. William Wallace, at Ansonia, Ct., where many experiments with electric-arc lights and dynamo-machines were in progress, and while studying these, was impressed with the desirability of producing an incandescent electric lamp.

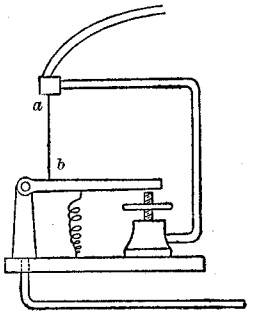


Fig. 15.—Edison's First Incandescent Platinum Lamp.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Like so many before him, he first turned to platinum and platinum alloys, and devised a form of lamp admirable for its simplicity, but, unfortunately, open to a fatal objection. This first lamp of Edison's is shown in Figure 15, in which *a b* is the incandescent platinum wire.

The announcement of a new system of electric lighting, made by Mr. Edison and his friends on the foundation of this device, attracted universal attention, and even caused a serious fall in the value of "gas stocks" in this country and abroad. It is, indeed, amusing now to look back upon the extravagant assertions and predictions made at that time, and widely circulated, when we realize how more than frail was their foundation. In fact, Mr. Edison very soon found out that this simple device was entirely insufficient for the purpose proposed, because the heated platinum wire gradually stretched by its own weight, and thus was constantly getting out of adjustment, and finally would become attenuated and break.

It also happened that, though the secret of this great invention was carefully guarded, some inkling of it escaped, and this enabled those who were familiar with such subjects to perceive the close similarity between this Edison lamp and

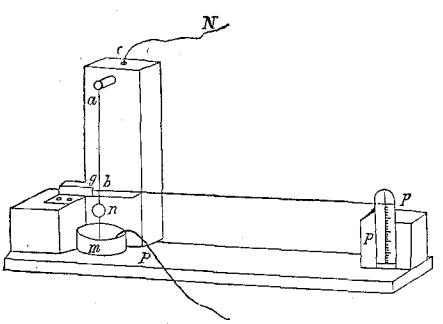


Fig. 16.—Dr. J. W. Draper's Plan for an Incandescent Platinum Lamp, 1847.

a b is the incandescent platinum wire or strip, supported above by the brass pin at *a*, which runs into a cavity, *e*, filled with mercury and is thus connected with the battery wire *N*. The other end of the platinum wire or strip is attached to a delicate lever, *g p*, turning about the fulcrum *g*; a little weight, *n*, tends to keep the wire stretched, and communication is made through it by a copper wire with the cup *m* filled with mercury, into which dips the other battery wire *P*.

a similar device constructed and used by Dr. J. W. Draper prior to 1847, and described and figured in articles published by him during that year in *The American Journal of Science and Arts*,

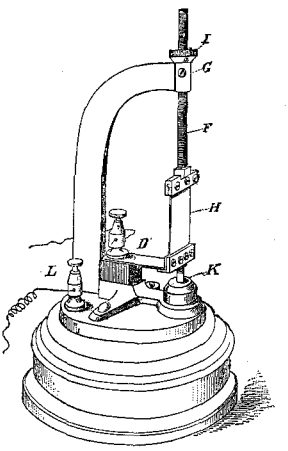


Fig. 17.—Maxim's Incandescent Platinum Lamp.

H is a strip of platinum, adjustably supported by means of the screw *F* and nut *I*, from the standard *G L*, from which it also receives an electric current which normally passes out through *D*; but when, by excessive heat, the platinum strip is elongated unduly, a short circuit is closed at *K*, which diverts the current from the standard and platinum strip, and so prevents the fusion of the latter.

The London, Edinburgh, and Dublin Philosophical Magazine, and *Harper's New Monthly Magazine*. This apparatus of Dr. Draper is shown in outline in Figure 16. It was used by Dr. Draper as a source of light or lamp with which he determined the relations between temperature and luminosity. At the conclusion of his article Dr. Draper says: "An ingenious artist would have very little difficulty, by taking advantage of the movements of the lever, in making a self-acting apparatus in which the platinum should be maintained at a uniform temperature notwithstanding any change taking place in the voltaic current."

It also appeared that precisely the same idea had occurred to another inventor, Mr. Hiram S. Maxim, who has recently developed such a marvellous improvement in magazine or repeating guns, and who, on December 22, 1879, filed an application for a patent which, after an interference litigation with Edison, was finally issued to Maxim on September 20, 1881, for the form of electric lamp shown in Figure 17.

It has also been shown that in 1858

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Mr. M. G. Farmer, one of the veteran electricians of America, to whose work in connection with the dynamo-electric machine allusion has been made before, lit a room in his house at Salem, Mass., for several months, with platinum lamps of similar structure controlled by automatic regulators.

During 1878 and 1879, however, Mr. Edison was most diligently at work, and, perceiving the imperfections of his first ideas, sought in every way to overcome them. It thus came to pass that by December 21, 1879, at which date he made his first revelation to the public, in the pages of the *New York Herald*, he had perfected a platinum lamp which is shown in outline in Figure 18, as well as some other forms substantially like it.

But these platinum conductor lamps were not the only outcome of Mr. Edison's work between the fall of 1878 and December, 1879. As this *Herald* article also related, Mr. Edison, like many before him, having experienced the insuperable difficulties present in metallic conductors, had turned his attention to carbon in various forms; and, like Sawyer and Man, had found fibrous textile materials, when carbonized, to be most convenient, and paper especially to be, in the first instance, the most available substance. Like Sawyer and Man he had also found the arch or horseshoe form to be the most desirable.

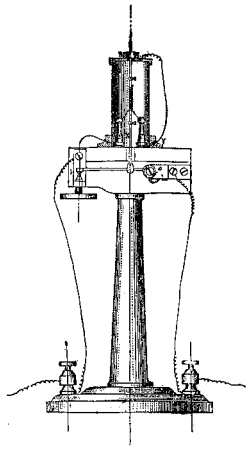


Fig. 18.—Edison's Platinum Lamp on Column Support, 1879.

The incandescent wire of a platinum alloy is supported by a metallic rod about which it is wound and whose expansion serves to operate a shunting contact below, by which an inconveniently high temperature is avoided.

Though working with the same materials and form, Edison produced a structure very different in appearance from that of Sawyer and Man, as will be seen by reference to Figure 19, which represents one of Edison's paper carbon lamps, which was the first one whose electric properties were accurately measured, these measurements having been made at the Stevens Institute of Technology, early in 1880, by the present writer, acting in his capacity as Chairman of the Committee on Scientific Tests of the United States Light-house Board, that body desiring information as to this new light, and deputing the work of investigation to this committee.

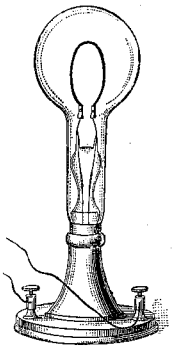


Fig. 19.—Edison's Paper Carbon Lamp.

In this lamp the carbon conductor is supported on platinum wires and held in minute platinum clamps at the ends of these wires, which are sealed through the walls of the pear-shaped enclosing tube in the manner which had been familiar for twenty years in the construction of the beautiful electric toys known as "Geissler tubes."

The interior of this glass vessel had likewise been exhausted and hermetically sealed in the manner usual with many Geissler tubes and with the radiometers of Dr. William Crookes.

Indeed, as was subsequently made apparent, the wonderful results obtained by Dr. Crookes, in the production of very perfect vacua, were of essential importance to the development of the incandescent electric lamp. Several of the instruments produced by Dr. Crookes in the course of his researches were in fact incandescent electric lamps, consisting of coils of platinum wire enclosed in glass vessels exhausted to a very high degree, the coils being heated to brilliant luminosity by electric currents. One of these is shown in his paper in the "Phil-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

osophical Transactions for 1876," vol. xlvi., Part II., page 351.

Further experience proved to Edison and others that *paper* carbons were not the best for the conductors of electric lamps, and many other substances have been, or are now, employed for this purpose. Among these may be mentioned silk, hair, parchmentized cotton thread, tamodine or reduced celluloid, and last, but not least, bamboo, which is used to a very large extent.

The making of these electric lamps is carried on in a number of large factories, such as that of the Edison Co. at Harrison, near Newark; those of the Westinghouse Electric Co. at Newark and at Pittsburg; that of the Consolidated Electric Co. at West Twenty-third Street, New York; that of the Thomson-Houston Co. at Lynn, Mass.; that of the Brush Co. at Cleveland, O., and a number of smaller establishments elsewhere. The daily output of all these factories taken together is about fifteen thousand lamps, or four and a half million a year.

The methods of manufacture are substantially alike in all, and I will therefore describe one only as an example.

Sheets of tamodine (or celluloid from which the nitric constituent has been removed) are cut by a machine into delicate strips or filaments, which are collected in small bundles and bent so as to lie in U-shaped grooves in iron plates. These, packed with carbon powder, are enclosed in large black-lead crucibles, carefully closed, and heated in a Siemens furnace to an intense white heat. After cooling, the crucibles are opened, and the now carbonized filaments, looking like delicate wires or threads of steel, are removed. They have now the U-shape into which they were bent before carbonizing, but are so elastic that they can be stretched out straight without breaking. Their ends are next thickened by a remarkable process devised by Messrs. Sawyer and Man, and which is conducted as follows: Each U-shaped fibre is grasped by two clamps, one holding it by the extremities or ends, and the other at a little distance above. The loop and clamps are then plunged in a vessel of high-boiling petroleum-oil, like the well-known "astral oil," and a powerful electric current is passed from the clamps through the short portions of the filament, near its ends, which are grasped between them.

By this means these portions are intensely heated and decompose the hydrocarbon liquid in contact with them, so as to plate themselves with compact carbon like that deposited from the gas in the necks of gas-retorts. A few seconds' action suffices to make this deposit of carbon thick enough to answer the desired purpose.

We will next turn to the glass-blowing department, where hundreds of girls are employed in all the delicate and skilful manipulations involved in the glasswork of these lamps.

The first step is to take two minute pieces of platinum wire, one end of each having been shaped into a little socket capable of holding the enlarged end of the carbon filament; and, after mounting them in a small lathe-chuck, to wind melted glass from a glass rod, heated in a glass-blower's lamp, around these platinum wires until they are for some distance embedded in glass and formed into a structure such as is seen at the lower part of the ordinary incandescent lamps. Into these glass and platinum supports are then inserted the enlarged ends of the carbon filaments.

In the meantime small glass flasks, made by the thousand at the glass-works, are passed through a variety of manipulations by which a small glass tube is attached to what would be the bottom of each flask, and its neck is shaped so as to receive the glass socket carrying the platinum wires and carbon filament. At the proper time this socket is dropped into the prepared flask, and by manipulation with the glass-blower's lamp and a sleight of hand which is simply marvellous, the glass socket, with its carbon filament and connecting wires, is sealed, by fusion of the glass itself, into the neck of the flask.

This operation is shown in progress in Figure 20, where the girl in the foreground holds in her left hand the glass flask by the glass tube which has been attached to it, and in her right hand the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

shears with which she at times holds and shapes the glass socket and neck of the flask. The blow-pipe flames, constituting what is called the "glass-blower's lamp" or "fire," are seen as pointed tongues of light between the hands of the operator, who is supposed at the instant represented to have just raised an electric lamp, finished (so far as her work is concerned) from the flame.

Fig. 20.—Sealing the Glass Socket and Carbon Filament into the Flask of an Incandescent Lamp.

The next thing to be done with the lamps is to exhaust them. For this purpose they are attached by the small glass tubes before mentioned to radiating glass connectors, and these are in turn attached to the pumps, while at the same time electric connections are made so that currents can be sent through the filaments of the lamps while they are being exhausted by the pumps. These pumps are themselves entirely composed of glass, and operated by the flow of mercury back and forth within them, and their operation is so nearly automatic that a few attendants can keep a large number of them in steady operation.

When a good vacuum has been reached, the current is passed through the lamps and they are then kept at a brilliant incandescence for some hours, in order to drive out any gas which might be occluded in the carbon filaments or adhere to the interior surface of the glass. This process of exhaustion and a series of pumps and lamps in operation during the process are shown in Figure 21.

After the complete exhaustion of the lamps it then only remains to "seal them off," that is, to melt the small glass tube attached to each so that its sides close together, and it becomes a little knob of glass, and to attach the brass caps by which they are to be subsequently connected to their sockets.

The uses of these lamps are so countless and so familiar to everyone that we have only selected one unusual one for illustration, namely, the lighting of the Hoosac Tunnel, which has recently been carried out by this means in the face of great difficulties encountered in securing adequate insulation, in such a

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

situation, for the wires carrying the current to the lamps. The lamps are attached to the rock or to the stone lining of the tunnel in the manner shown in Figure 23, (p. 196) and produce when in operation the effect shown in Figure 22.

As we have seen so often already, the solution of one problem always opens up another, and thus it is not surprising that the cheapening of electricity and increased efficiency of incandescent lamps brought to the front the problem of an economical method for carrying the electric current from the generator to the lamps.

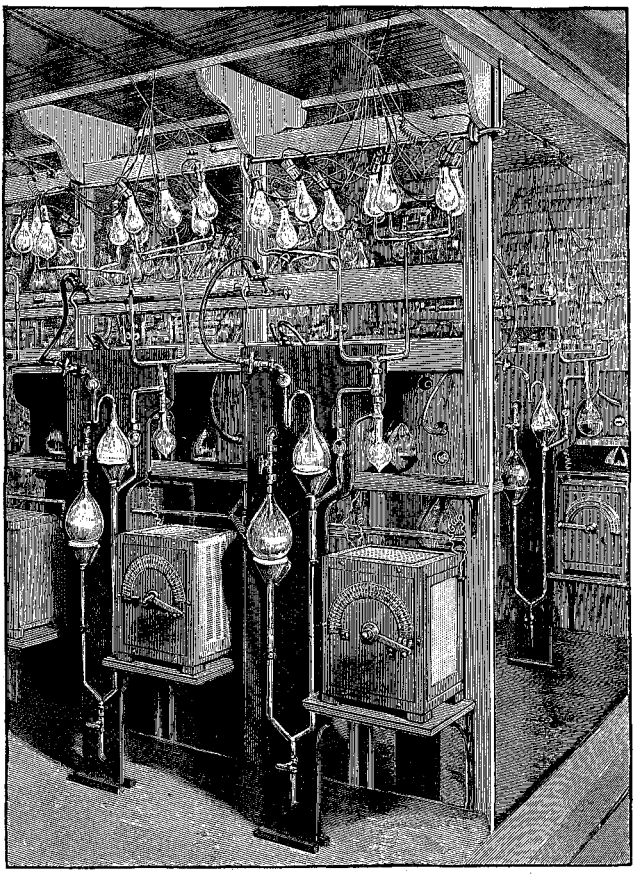
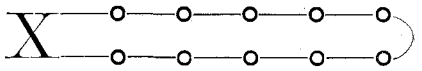


Fig. 21.—The Process of Exhausting the Air from Incandescent Lamps.

There were two well-known systems which had been often used in other applications of electricity, and, indeed, even described and patented for use in electric lighting, namely, what are commonly known as the "series" and the "parallel" systems.

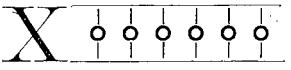
The "series" system is that always and necessarily employed whenever more than one arc light is used on the same circuit, and may be likened to the arrangement of disks on the chain of a chain-pump, or illustrated by the accom-



panying diagram, in which X represents a dynamo-machine and o, o, o, o, etc., represent a series of lights connected by the circuit wires —, —, so as to form a single chain from the machine through all the lights in succession back to the machine again.

This was the usual arrangement of the telegraph instruments at the various stations on a line.

The "parallel" or "multiple arc" system was one which might be indicated by a ladder or by the accompanying diagram, where, as before, X represents the dynamo,



from whose poles proceed two main conductors between which the lamps o, o, o, etc., are placed in cross connections.

This was a method commonly employed in central telegraph offices for operating the sounders by means of the large "local" battery. It is also described in the United States Patent to H. Woodward for improvement in electric lights, granted August 29, 1876, as well as in many other places.

The first method has certain drawbacks which are specially important in the case of incandescent lamps, where, for economy, a large number should generally be operated on a single circuit:

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

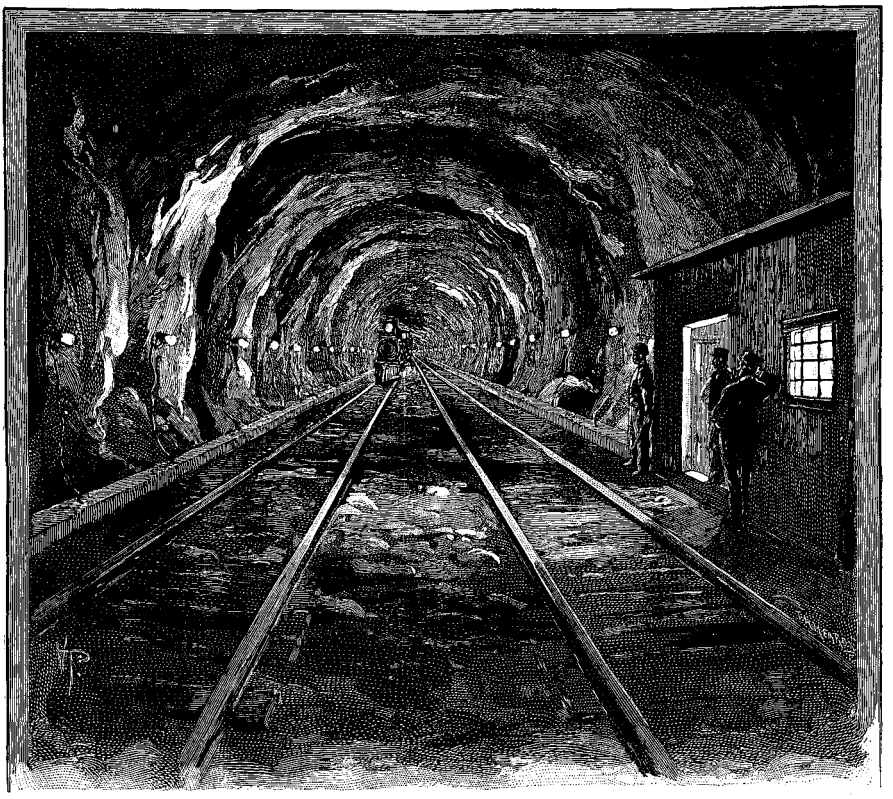


Fig. 22.—The Hoosac Tunnel Lit by Glow Lamps, after the plan of the Marr Construction Company.

1. The extinction of one lamp means the extinction of all, unless some more or less complicated mechanism is provided to restore the connection around the lamp which has failed or has been turned out.

2. The electro-motive force, or electric pressure, needing to be multiplied in direct proportion to the number of lamps in the circuit, soon becomes inconveniently high.

Both of these difficulties being avoided in the "parallel" system, this last has been generally adopted by all the companies using incandescent electric lights for most of their work. This is, however, by no means universal, for the Edison Co., in what they call their "Municipal system" (used mostly for street lamps in small towns and villages), run incandescent lamps in series. Other companies often run their lamps in a combination of the two systems, and the Heissler Co. run their lamps in "series" exclusively.

In avoiding the difficulties of the "series" system mentioned above, the parallel or multiple-arc system encountered others, the chief of which was the great size and cost of the conducting wires, if the distance between the dynamo and the lamps was considerable. Suppose that a group of lamps was placed one thousand feet from a dynamo, and the wires used were of such a size that their resistance to the flow of the current caused them to waste ten per cent. of the energy developed. Now let us suppose that this group of lamps is moved away one thousand feet farther. This would, of course, mean doubling the length of the wires, which alone would double their cost; but it would also mean doubling their resistance, if they were not made larger than before, and so wasting twenty per cent. of the electric energy generated by the dynamo.

To avoid this loss we must make the wires twice as heavy per running foot,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and if we do so we can then reduce the loss at two thousand feet to ten per cent. as before, but clearly we have four times the weight of copper to pay for in our conductors. If the lamps are removed to a total distance of three thousand feet we shall have three times the length of wire, and to keep down its resistance to that producing a loss of only ten per cent., we must make the wire three times

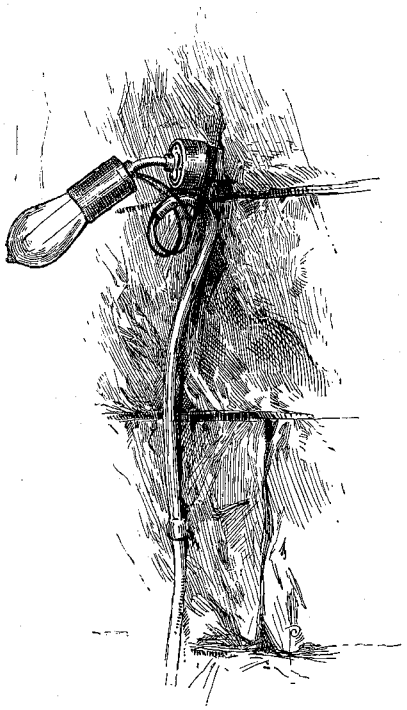


Fig. 23.—Method of Attaching Glow Lamps to the Walls of the *Hoosac Tunnel*.

as heavy per foot, or, in all, we shall require nine times as many pounds of wire to operate the lights at a threefold distance. The law evidently is, that the weight and cost of the wire will increase as the square of the distance.

This difficulty is mitigated to a considerable degree by what is known as the "three-wire" system, first indicated by Mr. Brush in his patent No. 261,077, issued July 11, 1882, and developed in two different directions by Mr. Edison, in his patent No. 274,290, issued March 20, 1883, and by Mr. H. M. Byllesby, of the Westinghouse Co., in his patent No. 345,212, issued July 6, 1886, so that the loss can be reduced to three-eighths or even to five-sixteenths of what it would otherwise be by a moderate increase in the complication of the arrangements.

The outstanding loss has, however, led to the development of a radically new and very interesting system, known as the secondary or transformer system, chiefly represented in this country by the Westinghouse Electric Co.

The principle on which this system operates is indicated by Professor Brackett at pages 654 and 655 (June) of his article, and may be briefly stated by saying that if we have two conducting wires parallel to each other, and pass an interrupted or reversed (*i.e.*, alternating) current through one of them, there will be produced a similar, but always alternating current through the other, without there being any conducting contact at all between the wires.

This may be very beautifully shown by the following experiment:

We have upon a table an oval coil of fine copper insulated wire, through which is passing the rapidly reversing or alternating current obtained from a dynamo-machine which is working without a commutator. (Fig. 25, p. 199.)

If, now, we hold above it just such another coil, in whose circuit is included an incandescent lamp, this lamp will light up and glow to its full intensity as we bring the second coil near to the first, and will die out as the coil is moved away. This will operate just as well with a plate of glass between the two coils.

This action is greatly intensified by enclosing both coils in a mass of iron whereby magnetic influence is brought into play, and accordingly the converters or transformers used in this system are made, as will appear from inspection of Figure 24, by enclosing the two coils in a mass of iron made up of thin sheets, so cut that they can be sprung in, one at a time, around the coils.

The relative character of the currents in the two coils, depends substantially on their lengths and consequent resistance; that which is shorter and thicker having a current of larger volume and less pressure or electro-motive force, and that which is longer and thinner having less quantity or current strength and more electro-motive force or pressure.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Now a current of high electro-motive force and small quantity, can be carried a long distance on a small wire with very little loss.

If, then, we pass this current through a coil of long fine wire, in a converter whose other coil is relatively short and thick, we shall obtain in the latter a current whose quantity is great and whose electro-motive force is low. In other words, we can thus transmit such a current as goes easily on a small wire, from the central station to the house where the lights are to be used, and there transform it into the kind of current most desirable for the operation of incandescent lights. In practice the Westinghouse Co. send out their currents with an electric pressure of one thousand volts or units of electro-motive force. A quantity of this current equal to one ampère, or unit of current strength, running through the fine wire of one of their converters will develop in the coarse wire a current of twenty ampères quantity but of only fifty volts pressure.

Moses G. Farmer.

Such a current, however, would be just what was wanted to run twenty incandescent lamps in "parallel" series, which is the most convenient way, as each is then entirely independent of all the others.

The problems of cheap production of electric energy, of cheap and efficient regulators or arc lamps, of cheap and efficient incandescent lamps, and of economical methods of distributing the electric energy from the electric generators to the lamps having been solved so thoroughly, as has been here indicated, there seemed little yet to be desired. One thing, however, was *not* provided for, and that was the storage or accumulation of electric energy. The method of its production by the dynamo requires an absolutely constant activity and a literally sleepless vigilance. If the steam-engine stops or relaxes its speed, the light goes out or becomes dim; or if a belt breaks or slips off, or any part of the dynamo becomes disarranged, the light is gone in an instant and without warning.

This lack of storage capacity was often referred to, and was a serious reproach to the systems of electric lighting as compared with other methods of illumination. This reproach has been to some degree removed by the labors of M. Camille A. Faure, and of those who have followed up, and to a greater or less extent improved upon, his invention.

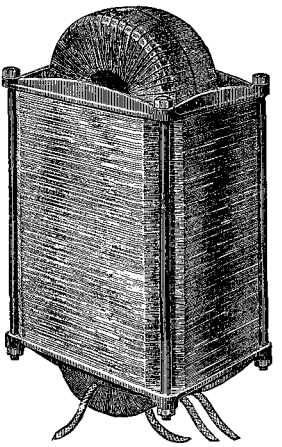


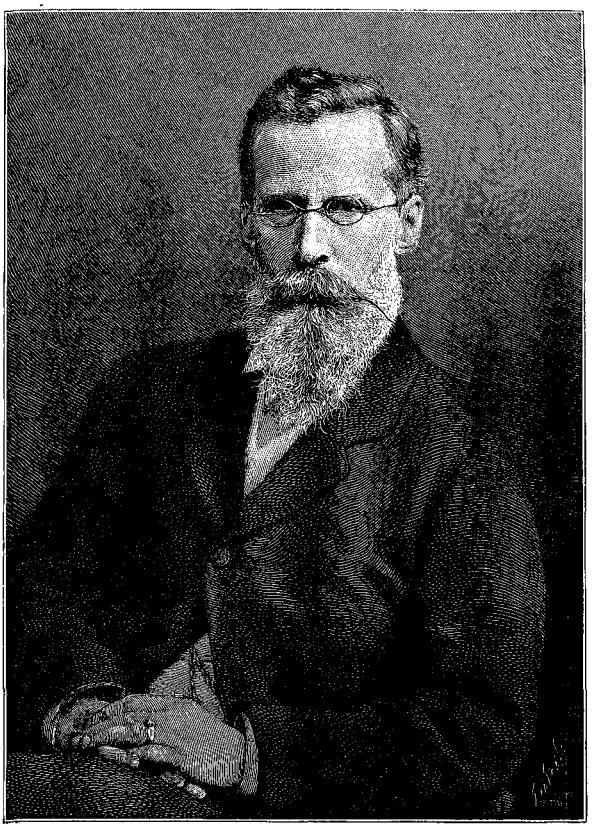
Fig. 24.—Converter or Transformer Used with an Alternating Current.

The "state of the art," as regards the storage of electricity prior to Faure, may be fairly expressed and summa-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

rized by a statement of what was done by Gaston Planté * in 1860.

This experimenter took a series of lead plates, immersed in a vessel containing diluted sulphuric acid, and coupled or joined them so that they were united into two groups, each alternate plate constituting one group and the intermediate plates being connected so as to form the other group. He then passed the current from a couple of battery cells, arranged in series, into this structure, by joining the positive pole of the battery to one of these groups and the negative pole to the other. When the action of the battery had continued for a long time, he found that on removing the battery, he could get an electric current from his two groups of lead plates; this current being opposite in direction to that developed by the battery and capable of yielding a greater flow for a shorter time. The knowledge already accumulated had explained the cause of this, which was as follows: The plates of lead, even before immersion, were coated with a film of oxide, and on immersion, at all events, would soon acquire a coating of sulphate of lead. The passage of the battery current between these plates would convert the oxide or sulphate, on one side into metallic lead, and on the other side into peroxide of lead.



Dr. William Crookes, F.R.S.

Now, metallic lead and peroxide of lead, as was well known, are substances well fitted to develop a galvanic current in the same way that such a current is developed by an ordinary galvanic battery made with plates, for example, of zinc and copper—the metallic lead taking the place of the zinc. There was, however, one important difference, that whereas in the zinc battery the zinc went into solution, in the lead battery nothing was dissolved, and therefore everything kept its original position, so that the original cycle of action could be indefinitely repeated. Planté, in fact, found that by repeatedly charging his lead plates from an ordinary battery, and discharging them again, and also by reversing the direction of the charging current, the capacity of his lead plates, or the amount of electric energy which they could be made to absorb and redevelop, was greatly increased. Indeed, the maximum capacity secured by this treatment was only reached after about six months of such charging and discharging. The reason of this also was not far to seek. By these repeated actions the surfaces of the leaden plates was corroded or honey-combed, and thus a greater amount of the material was in condition to be converted into metallic lead and peroxide by the battery current, and again to return to

* The news of Planté's death, early in June, is received while this article is in preparation.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

protoxide and sulphate during the discharge.

To obtain any considerable capacity in this way, however, required months of treatment (called "forming"), and a heavy expense for the charging currents, and soon after a battery was fully formed it began to deteriorate by a continuance of this corrosive action, which caused the porous material to scale off and the plates themselves to break up.

Planté's batteries were therefore of no commercial value, on account of their high cost and limited capacity.

Matters stood thus when, in 1881, the world was astonished by the accounts of what Mr. Faure had done in the way of improving this Planté secondary battery, into his electrical accumulator or storage battery.

His plan was a very simple one, but wonderfully effective. He took a quantity of litharge or of red lead, or a mixture of the two, both being oxides of lead, and making this into a paste with dilute sulphuric acid he coated the lead plates with this mixture. When the plates so coated were plunged in dilute sulphuric acid, and an electric current was made to pass between them, the thick coating of oxide-paste on one side began at once to be converted into a spongy mass of metallic lead, and on the other into a like spongy mass of peroxide of lead.

Camille A. Faure—inventor of a storage battery system.

In this way no time was lost in the "forming" process, and the capacity of the plates was very much greater in proportion to their weight than in the most perfectly formed plates of Planté. An improvement on this plan was made by Swan, of England, and others, which consisted in so perforating the plates that the paste of oxide would fill the apertures, like a series of rivets with conical heads, by which it would hold itself in position.

The Faure and Swan patents and some others were taken out in this country by the Electrical Accumulator Co., who established a large factory at Newark, N. J., where these batteries have been made for many years. Figure 26 shows the interior of the

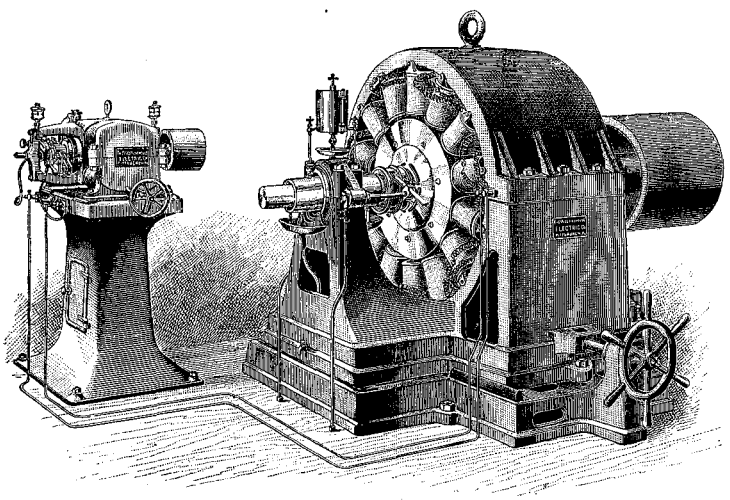


Fig. 25.—An Alternating Current Dynamo and Exciter.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Fig. 26.—Room in the Factory of the Electrical Accumulator Company.
The groups of battery plates, such as are shown hanging from the travelling pulleys, are immersed in tanks of dilute acid, and charged by electric currents.

principal work-room in this factory. These batteries only *store electricity* in a metaphorical sense. What they actually do is to transform the active energy of an electric current into the potential chemical energy of separated chemical substances, which are able, by their reunion, to develop again an electric current such as that which produced them. In other words, the charging current each time decomposes the oxides and sulphates of lead formed by the chemical action of the battery during its discharge, so as to develop metallic lead on one set of plates and peroxide on the other. This having been done, this metallic lead by combining with oxygen and sulphuric acid on the one hand, and the peroxide by combining with hydrogen on the other, develop an electric current, as does any ordinary galvanic battery.

As these successive changes can be repeated an indefinite number of times, the effect and appearance are the same as if the electric current had been in fact stored up or accumulated in the storage battery.

A PAGAN INCANTATION.

By Hjalmar Hjorth Boyesen.

HAROLD OLYPHANT'S face was lighted up, by the glow of the fire, with a Rembrandt-like effect. You could see that it was a delicate face; perhaps you might even pronounce it a handsome one, but you might not discover at once, in that rosy illumination, that it was the face of a sick man. Whatever beauty it had was that of intelligence, refinement, and sensibility. It was not obtrusively handsome; nor obtrusively anything. Such gravely observant blue eyes, such thin, wavy, blond hair, such gently accentuated features, we see every day among professional men with a taste for scholarship; and, if we take the trouble to interpret them at all, we conclude that they indicate inherited cult-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ure, and a disposition to take life seriously.

The moon hung, large and red, over the ridge of the mountains; the forest traced itself in a black, undulating line against the horizon, except where a gigantic pine loomed up ruthlessly, spreading its crooked arms with sharp and ragged elbows. Mosquitoes and moths innumerable whirled upward with the smoke, and heedless beetles came blundering along and dropped into the flames. Two white tents, faintly flushed with the sheen of the fire, broke the monotony of the twilight, and the form of a man, seated on a keg and smoking a cigar, showed in vague relief against one of them. He was a stalwart young fellow, and did not in the least resemble his delicate friend, who lay wrapped in a blanket, reading a book in front of the fire.

Oliver Griffin was a graduate of Yale, and by occupation a manufacturer of hats. He was a plain, honest, straightforward young man—the kind of young man who is characterized by his friends by the phrase: "There is no nonsense about him." He prided himself on his superiority to romantic considerations, declared that he meant to marry a homely girl, because the beautiful ones were always spoiled by flattery before they were out of their pinafores; and he was not discouraged by Olyphant's prophecy that, if he made his intention known, he was doomed to celibacy. A man so well "fixed" in life as himself, Griffin contended, need give himself no trouble on that score. He had hitherto rather been troubled by an *embarras de richesse*. With his placid self-conceit (which had a touch of drollery in it, and was not offensive) and his solid satisfaction with existence as it is, he was a most grateful companion to his high-strung and self-torturing cousin, who was always bothering about life's meaning, social problems, and other fantastic affairs. It was chiefly to escape his sense of responsibility for the world's misery that Olyphant had accepted the advice of his physician and gone to Norway; for whatever misery there is in Norway is of a quiet and unobtrusive kind, and is scarcely visible in summer; and even if it were visible, Olyphant could hardly, by any stretch of conscientious self-accusation, hold himself accountable for it. Moreover, Norway is so far out of the world, so pastoral and idyllic, that a man may, if he chooses, become a Strephon or a Philander, and live with his blonde Doris, in a golden age of love, undisturbed by politics.

So, at least, thought Olyphant. He was weary of the noise and clatter of life; the din of a locomotive made the lobes of his brain quiver with sympathetic excitement. The telegraph ran its impertinent messages, with shock on shock, through his nerve-centres, and the Italian hand-organ man and the German street band filled his ear with exquisite agony. The hysterical sensationalism of the newspaper press disgusted him; the shrieking mendacity of wrangling politicians made him despair of his kind. This supersensitiveness was, of course, a symptom of his illness, and he told himself a hundred times that it was unnatural and unhealthy. But such a mere intellectual conviction was impotent to affect the diseased nerve-centres, and, preach as much as he would, his feelings remained the same. Even the kindly but unmusical laugh of his cousin jarred on him, and it was useless to talk to Griffin about his longing for primeval silence and the like; for that blunt young gentleman took no hints, but treated his kinsman as a harmless and amiable lunatic, whose opinions he brushed away like so many cobwebs. He let his harsh mirth ring with a certain gusto through the lonely wilderness; and it seemed to Olyphant that it tore long, cruel rents in the beautiful silence. And when the loon answered from some dark tarn with its strange, wild laugh, it seemed like the voice of mocking mountain-spirits who reclaimed the alien sound and brought it into harmony with the grand and solemn solitude.

"Now put away that stupid thing and try to be sociable, Harry," said Griffin, walking up to the fire and flinging away the stump of his cigar.

"It is so very strange," murmured Olyphant.

"What is so very strange?"

"It is an old pagan incantation. picked up this ancient parchment in

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Bergen the other day, without knowing what there was in it. I only saw that it was written in a style of script which has not been in use since the fourteenth century."

"Oh, twaddle, some clever swindler has forged it."

"No, a forger would have chosen something of more obvious value—a fragment of the Elder Edda or something of that kind. This is a piece of paganism, surreptitiously preserved in some Norse cloister after the introduction of Christianity. The very fact that it is interlined, in small, pale runes, between the big, fat letters of the breviary shows that the poor, old half-converted monk who copied it held it in high esteem, and intended that no one should discover it."

"And what did you say it was?"

"A magic incantation for transferring a disease from which you suffer to another person."

"Ha, ha, ha, ha!"

Griffin's mirth again broke through the forest, with its rude discords, and a chorus of echoes took it up and laughed from east, west, north, and south with a strange, ghostly glee.

"Oh, don't, Oliver—don't," begged Olyphant, in a hushed, imploring tone.

Griffin was about to answer when all of a sudden there came a loud unearthly laugh out of the depth of the forest—not evil, but untamed, riotous, indescribably wild. It was not mirthful, but perhaps rather solemn. It was as if a Faun or an Oread had lifted up its voice; as if the forest itself had laughed.

"I'll be hanged," said Griffin, "if that wasn't rather queer."

"Hush," whispered Olyphant, "for God's sake, hush!"

He had his eyes fixed with a trance-like stare at something white that beckoned to him between the tree-trunks. Sometimes it seemed to be nothing but drifting mist that shimmered in the moonlight; now it was a gauzy garment, fluttered by an exquisite arm; and then, again, an undulating form that floated upward with outstretched arms, turning toward him a lovely face whose ghastly pallor struck a chill to his heart. There was something so wondrously still and immobile in the moonlight, like the stare of a large dead eye; life, with its noises, seemed so inconceivable and so far away, and strange things which tremble on the boundary of the senses drew near and became intelligible. To grow like a tree, slowly and placidly, with long sensitive roots penetrating the soil, a thousand branches wrestling with the storm, and leaves without number drinking the sun and the dew through myriad pores, must have its deep delights. How beautiful to feel the rare and potent juices of life mount within you, instinct with the sweetness and strength of the earth, building with elfin craft your delicate fibres, and unfolding your growth in a little green world, feeding and sheltering a teeming variety of animated things. Your vital processes are grand and slow, the rhythm of your being is Nature's rhythm; you inhale in a day, you exhale in a night; you sleep in the winter and wake with the spring.

These were the thoughts that dimly drifted through Olyphant's mind at the sight of the dimly beautiful face that gazed at him through the mist. It beckoned him to something for which a wild yearning suddenly awoke in him—the grand and solemn joy of absorption in infinite Nature. The old Brahmins called it Nirvana. The Norsemen say that it is the old pagan gods dwelling in woods and tarns and mountains, who beckon to man, striving to ensnare his immortal soul.

"What the deuce are you staring at, Harry?" cried Griffin, lighting a fresh cigar.

"Hush! Do you see that?"

"I see some shreds of vapor drifting among the trees."

"Ah, there you chased her away," ejaculated Olyphant with a voice of deep regret; "she was so beautiful."

"If you have any more visions," retorted his friend, angrily, "I am going to have a commission appointed *de lunatico inquirendo*."

Olyphant made no answer, and a great stillness stole out of the forest and encompassed land and sea. The sky impressed him no more with a sense of glorious space and freedom, but with an oppressive vastness, like a gaze into the eye of eternity. It was as if all Nature was holding her breath in terrified suspense. He began to long for Griffin's

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

harsh voice, simply to relieve him of his nightmarish oppression. But, as Griffin said nothing, he seized his parchment once more and attempted to read. It was written in old Norse or Icelandic, with many exasperating abbreviations; the small pale, snake-like runes, writhing with the infernal magic of a dead faith, winding themselves in close coils about the large and open letters of the Lord's Prayer. Was it a wanton sacrilege, on the part of the old monk, who had long since mingled his dust with the earth, or was it merely an artifice to avoid detection? The runes looked actually like mere decorations, such as occur in all mediæval breviaries, of the sacred text. But it pleased Olyphant's fancy to imagine a fiendish mockery in this shielding and clinging intimacy between the dread heathen incantation, breathing evil curses, and the sacred words of consolation and love, uttered by Him who hurled the old bloody gods from their thrones into the outer darkness. Perhaps the old monk intended by this ingenious arrangement to effect a compromise between the old gods and the new; perhaps he meant to counteract the magic of the incantation by that of the prayer as that of the prayer by the incantation. For the magic potency of the Lord's Prayer was an unacknowledged article of faith with the mediæval Christian Church. There seemed to be little sense, at first, in the quaint and abrupt alliterations, but no sooner had he begun to puzzle over them again than the strange chorus of minute sounds again became audible, and the same exquisite joy of oneness with nature, coupled with a sympathetic rhythm of being and ecstatic insight, burst upon him. He was no longer afraid of it now; but surrendered himself freely to his sensations. Freely translated into English, this is what he read:

Breathing and brooding
At the base of being,
Hear I the hell-hound
Howling hoarsely.
Hemlock and henbane
Harm the hardiest.
Wuotan wither
With woe and winter
The life of thy limbs;
Thy life-juice languish.
Frey and Frigga
Freeze the fountain
Of force that feeds thee.
The fiends that fret me
With frost and fire
Flee from me, fly from me;
Dole-dealing, death-dealing
Dwell with thee.*

It occurred to Olyphant while he lay sinking, as it were, into the embrace of an infinite, soothing mother, that the old pagan gods were nature gods—personifications of the forces of nature. Who knows that they were mere figments of the primitive brain? The early Christian Church declared that Christ had dethroned them; and that they were now demons, yet inhabiting forest, field, and lake, and striving by fiendish arts to reconquer their dominion over the souls of men. Nature was accursed of God, sharing in the curse of man. From the moment such a faith gained currency, man's sense had become blunter and coarser, and had at last been closed to all the subtler moods and sounds of nature. The old gods had shrunk into a shy reserve, withholding from man the gifts which it was in their power to bestow. But, ah! here came another thought, far more fraught with consequences than the first. If, perchance, this magic were real; if it were possible to transfer a disease to some other creature, why then should he, Olyphant, not avail himself of his discovery? He had so much to do in the world which only his weakness prevented him from accomplishing. Since he abandoned his linguistic studies, which he had prosecuted for three years in Germany, and devoted himself to science, life had seemed to him rich and precious. For three years he had labored with unremitting zeal at a grand discovery in physics which would revolutionize human society. It would double the earth's capacity for supporting her children; it would postpone for thousands of years the exhaustion of her resources. Paradoxical as it may sound, his purpose (which was indeed entirely feasible) was to make water the world's fuel. Every scientist knows that water can be burned by means of an electric current; but this method is too

* As the magic depends upon the combination of sound no less than of sense, the incantation is, of course, harmless in translation. Otherwise I should have had scruples in translating it.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

expensive. Olyphant was on the track of a much cheaper and simpler method, which had already yielded him astonishing results but was not yet sufficiently perfected for publication. I am bound to respect his wishes in giving no hint as to the nature of the discovery, which I do the more readily as he has never confided to me the details of his process.

It was in the untiring and feverish pursuit of this grand secret that Olyphant had worn out his health. He was an enthusiast of a noble sort, who did not begrudge the force he spent in an undertaking fraught with such enormous benefits to humanity. But one morning, when he had passed the night in excited anticipation over his experiments, his servant found him lying, in a dead swoon, on the floor of his laboratory; and from that day he had been a wretched invalid. He suffered from a sense of lassitude and profound exhaustion; life had lost its light and color, and a gray veil had been drawn over earth and sky. His thoughts were as vivid as ever; but, now that he was helpless to carry them out, they were but so many tormentors. At times he revived, and was full of hope; but then, again, the most absurd and insignificant incident would plunge him into a slough of despond in which he floundered heavily for days and weeks, seeing no gleam of light upon his horizon. And from the depths of his soul rose dimly the voices of his yearnings and aspirations like the sound of church-bells from submerged villages on the bottom of the sea.

If he had suffered from an incurable organic disease, his case could scarcely have been more hopeless. He had made an overdraft upon his strength, his physician said; and the cure was to repair the deficit by a constant and gradual adding to the credit side of his account with nature, and a rigid economy in expenditure. That sounded very nice, to be sure; but how to do it—that was the question. His imagination—his perpetual mental tortures—kept wasting the oil of his vitality more rapidly than his body could supply it; and no one had suggested a remedy for this waste. If he could but stop the machinery of his thought! But the master machinist who achieves this, he knows not the trick of setting it in motion again. He stops it for ever; and, all things considered, that was perhaps the issue most to be desired.

II.

Griffin put down his heavy foot, and swore that he had had enough of the wilderness. What with mosquitoes and bats, and wolves prowling about the tents, howling like demons, and the loons making night hideous with their unearthly mirth, he could scarcely be blamed for refusing to make a martyr of himself any longer. He compelled his cousin by main force to break up the camp, not for the reason he alleged, but because he honestly believed that Olyphant, if permitted to nurse his fancies in solitude, would sooner or later lose his mind. He therefore induced him to go to Hardanger, where they put up at a village inn, spending their days in sailing and fishing. It was Griffin who took the initiative in everything, the invalid obeying listlessly like a sick child. It was only when they talked of science, and by inference of his own invention (of which Griffin knew in a general way) that he occasionally waked up and his eyes kindled with the old animation.

"Oliver," he said, one sunny afternoon, as he was lying in the stern of the boat, gazing up into the sky, "could you imagine any circumstance which would justify a man in sacrificing another life to preserve his own?"

"We are doing that all the time," Griffin answered, lifting his dripping oars. "The first thing I did, when I came into the world, was to kill a man, who, I believe, in that case was a girl, and I have been at it ever since."

"I assure you I am not joking, cousin."

"Nor am I. You know my mother was too delicate to nurse me, when I was born. So she engaged a wet-nurse; whose child, being deprived of its mother's breast, died that I might live."

"And has the thought never troubled you, that you were the cause of that child's death."

"Not a bit. The chances are ten to one that that little girl would have extracted little happiness from existence,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and much misery. The pain I saved her far outweighs the pleasure of which I deprived her. Moreover, her father, being separated from his wife, took to drink and went to the bad. He was a weak vessel, I fear, and when his home was broken up, that I might live, he got into bad company and was killed in a brawl. There is life number two I have on my conscience."

"Why, Oliver, you seem positively to gloat over your destructiveness."

"My dear boy, we are all engaged in driving each other to the wall. You would be appalled, if you knew how many lives have been impoverished that yours and mine might be enriched; how many have been destroyed that ours might be preserved. Impoverishment is but a lesser destruction. I am bound to think that my life is the most important in the world and to act upon that supposition. And the moment I cease to think so, I am routed and defeated. I have signed my own death-warrant."

"I wish you would sign mine, too, Oliver."

"If you were a manufacturer of hats, I would, cheerfully. But as physicists don't in any way interfere with me, and may benefit me, I have no interest in despatching them into eternity."

"Your philosophy is a brutal one, Oliver."

"Not at all. Nature is lavish of life. She is appallingly prolific. She has ordained that only the strong should survive, that the fit should develop their fitness by eliminating the unfit. Nine lives out of ten are in my opinion worthless, except in this indirect way, as the small fishes are valuable to the big."

"Supposing you were right—if I could but find one of these absolutely worthless lives—and be sure of it, beyond a doubt—I should—I should——"

He could not finish. The thought refused to shape itself so that it could be uttered, and, moreover, he was a little bit ashamed of avowing, before his sceptical cousin, even a shadow of belief in the magic of the old incantation. In one moment it was perfectly plain to him that he had no such belief; but in the next he felt a temptation to whisper the old verse to somebody, just to see if there was anything in it. He knew that it was a silly and childish desire; but supposing it was true, as Griffin said, that nine lives out of ten were of no use either to themselves or anybody else, what then could be the harm of making the experiment? A man who is sick unto death does not mind throwing his reason overboard in his efforts to keep hold of the life that is slipping away from him. No cure is too absurd to try, if somebody asserts that it has benefited him. It was a ridiculous thing, of course, incapable of being discussed among rational people; but that did not prevent Harold Olyphant from clutching at a shivering hope that he held in this mysterious parchment the key to restored health and activity. There was a twilight region of the soul, separate and distinct from the daylight region, in which science and reason dwelt; and in these dusky recesses the strangest things could strike root and send forth long pallid shoots that sought and yet shrank from the daylight.

The next day the two friends were out rowing on the fjord. When they had talked for awhile, Olyphant pulled the ancient parchment from his pocket, and became absorbed in the contemplation of the runes. The locusts—oh, what an exquisite, swelling *crescendo* they executed; while the crickets fiddled away merrily on their one little shrill metallic note; and a sweet-voiced bird on the shore burst into a rapturous warble. In an indefinable way he seemed nearer to "the base of being;" a purely pagan joy took possession of him—a kind of bacchantic sympathy with riotous mirth and revelry and wildly unrestrained passion. He sprang up in the boat, gave a shout, and waved the hand in which he held the parchment. The light wherry gave a lurch.

Harold Olyphant reeled, and in order to recover his balance, involuntarily unclosed his hand, and the parchment fell into the water. He had a momentary insane impulse to plunge in after it; for it sank as if it had been of stone. If Griffin had not grabbed him by the shoulder, he would have gone overboard. As he fell forward, the boat careened, shipped some water, and came near upsetting; but Griffin's presence of mind again averted the catastrophe.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Now, brace up; and behave like a rational creature," he cried, angrily.

Olyphant did not answer; but lay with his face over the stern, staring down into the clear water. The parchment was still sinking; down, down it went through the cool, green regions of the deep; and the fishes swam wonderingly about it, skipping out of the way and again curiously returning. At last it touched bottom; but it seemed to Olyphant that the bottom moved, as if alive, and a mist of mud rose, and for a moment, obscured the view. Then a great, wise-looking flounder, with a sour expression and mouth awry, emerged from the mist, and, curling its sensitive fins, moved away. There lay the venerable curse, among the brown kelp and the green rock-weed which streamed out, half covering it, and waved faintly in sympathy with some subtle pulse-beat that vibrated upward. What a happy realm was that vast emerald expanse, clear as crystal, as far as the eye could reach; where the placid fishes swam at meditative ease; where the pink and purple starfishes clung to the kelp-grown bowlders, where the sea-anemones unfolded their vivid bloom, and the sluggish jelly-fishes drew their comet-like tails like a crimson mist behind them. A sudden luminous insight into the very soul of creation flashed through the young man's brain. A deep mysterious sympathy with these tranquil creatures,

"But half aroused from the primordial sleep,"

took possession of him. How beautiful seemed to him their calm accord with nature, their unreflecting submission to the dim instincts that kindled and preserved their slow-pulsed lives! How gladly would he, too, have sunk into this happy dusk of semiconscious existence, as a child, through a delicious semi-slumber, sinks to dreamless repose upon its mother's breast.

III.

The next day the weather was stormy, and Olyphant was ill. He felt wilted and withered in every limb; the daylight seemed a weariness and an impertinence; the rain that beat spasmodically like handfuls of shot against the window-panes startled him and made him jump in bed. A young peasant girl named Marit, in scarlet bodice and black skirt and two long braids down her back, came in and began to strew fresh sand and juniper-twigs upon the floor. The invalid lay sniffing the pungent odor, until Griffin entered, smoking a strong cigar.

"I wish you wouldn't smoke," Olyphant said. "You are killing the juniper-smell."

"Juniper-smell? Oh, you like it, do you?"

"I do."

"Then I'll leave you to enjoy it alone. If you want me, send for me. There's a party of Yankee tourists weather-bound here. I'm going down to flirt a little, just to kill time."

Olyphant, for some reason, felt a vague animosity toward those Yankee tourists. He pictured to himself some shrill, angular New England girls, with short hair and a thirst for culture. As the afternoon wore on, the weather grew worse; and the New England girls tortured his fancy with suggestions of all the things which he abhorred in women. They grew constantly more definite and unattractive. They became Cook tourists "doing" Norway in nine days; most likely Massachusetts school-mistresses with hard, intelligent faces, eye-glasses, mannish attire; and devoid of every grace that makes womanhood adorable. Griffin, with his cumbrous sportiveness and his matter-of-fact manner, flirting with these unlovely damsels must be a sight for gods. The vision pursued Olyphant like a nightmare.

Through the small lead-framed windows there came a burst of clear sky. Presently Marit brought supper, but Olyphant was unable to touch it. When she had departed he tumbled out of bed, in a sort of feverish daze; reeled about on the floor in search of this garment and that, and succeeded, in the course of an hour, in making a passable toilet. He flung the windows open, and sat gazing into the cool, transparent dusk, out of which the huge pile of the mountains rose in placid majesty. The pure bracing air revived him somewhat, and with the aid of a stout stick he managed to make his way to the bal-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cony, where tourists sat in groups raving about the grandeur of the scenery. Through Olyphant's oppressed mind flared suddenly a wild hostility to these people. He did not know why—but he detested them all—he hated them. Here were lives enough that cumbered the earth, and could well be spared. There could be no harm in trying the ancient curse on one of these—for in all probability it would have no more effect than the breeze which wafted over their heads—but it must be someone, unknown and unseen, whose fate, past and to come, he would never know; someone whose veiled face rose for this one instant out of the vast indistinguishable throng, and vanished like a drop in the tides of being.

He was not sane, perhaps, as he stood there, leaning upon his stick, peering forward with eager, feverish gaze. Out of the chaotic depths of his soul struggled a shuddering conviction that the curse was yet potent—that death and dole still dwelt in the mysterious alliterations. A harsh, cackling laugh struck his ear from the corner of the balcony where his cousin was sitting. It shivered his spine and excoriated his nerve-centres. It was only those odious Cook tourists, with their coupon trip-tickets, their brazen inquisitiveness, and manufactured enthusiasm, who could laugh thus. He fastened his eyes upon the back of the one from whom he supposed that the laugh had come, and tried to recall the pagan verse. He saw vaguely the outlines of a woman's form—a wide-brimmed straw hat, a shawl covering the shoulders, and a lock of hair which strayed from under the hat-brim. The shadow of the great mountain above deepened the twilight and obliterated all hints of personality. It was but a woman—whether young or old he could not tell. And she had a harsh, cackling laugh! One of the forty thousand supernumeraries of Massachusetts, probably. And yet he was all in a tremor as he strove to whisper the fateful words. His head was in a whirl, his thoughts piled themselves helter-skelter in wild confusion. It was an awful thing he was about to do. Murder seemed innocent in comparison with it. But then, what is the struggle for existence but a slow, perpetual murder? For impoverishment is "slower destruction," as Griffin said. He was a foolish sentimentalist to be troubled with scruples. He had but this one life; and if he lost it, what was there left to him?

"Breathing and brooding,"

he began; but the words stuck in his throat, and the blood ran riot in his head, which throbbed as if it were going to split.

"Breathing and brooding,"

he began again; and this time the second line came without effort; all struggle was at an end; his blood ran with a marvellous, placid vigor and a cool serenity which astonished him, as he murmured, in the uncouth Icelandic, the dread and venerable imprecation.

"Breathing and brooding
At the base of being,
Hear I the hell-hound
Howling hoarsely."

It seemed to him as if the air grew strangely still about him. The crickets in the grass broke off their shrill note with a startling abruptness, and the mosquitoes that hummed about him dropped out of sight, as if smitten with a deadly plague. That same oppressive suspense which he had noted the first time he deciphered the flaming runes in the forest again took possession of all nature about him. The sky seemed to be holding its breath in anxious expectation.

"Wuotan wither
With woe and winter
The life of thy limbs;
Thy life-juice languish,"

he continued, in a murmurous undertone—almost joyously.

"The fiends that fret me
With frost and fire
Flee from me, fly from me;
Dole-dealing, death-dealing
Dwell with thee!"

he finished breathlessly, fixing his gaze, all the while, with the concentration of all his soul's energy, upon the girl who sat leaning over the balustrade at Griffin's side, gazing out upon the landscape.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

As he uttered the last words a convulsive shiver ran through her; she arose abruptly, pressed her hand against her temples, and said, in a tremulous but singularly musical voice:

"Why, aunt, I fear I have caught cold; I feel so strange."

"I shouldn't wonder, dear," answered the lady on the other side of Griffin, in a voice which corresponded to the cackling laugh; "let us go in. This night-air is very treacherous."

Olyphant had intended never to see or know the one against whom he hurled the ancient curse, for his morbid conscience would torture him to death, in case this person should show symptoms of ill-health. But an anonymous and impersonal victim could never be very troublesome. He would have slipped away now, and never questioned Griffin about his companion, if the conviction had not burst upon him that he had made a terrible mistake. He had attached the unmusical laugh to the wrong person, and perhaps brought calamity upon one whom he had not intended to harm. A fatal fascination riveted him to the spot; reluctantly he peered forward, with his heart in his throat. A dismal foreboding of evil stole over him like a chilly mist.

"Hallo, old man," cried Griffin, as he caught sight of the pale, eager face, quivering with dumb agony, "what are you up to now? I have just been telling the ladies of your interesting lunacy. Here, Miss Ramsey, is my cousin, of whom I have been speaking. Permit me to make you acquainted with him. Mr. Olyphant—Miss Ramsey."

Olyphant found himself bowing automatically, like a man in a dream who does preposterous things, without being able to account for them. Just at that moment the moon sailed out from behind the mountain-peak and softly illuminated the girl's face. He gasped out an exclamation of amazement or inarticulate woe, and with dilated eyes stared at her. Ah, the pity, the misery of it. This creature whom he had picked out as the most worthless of her kind seemed to him surpassingly lovely. So pure and sweet a countenance, so nobly fashioned, he had never seen before. The idealizing glamour of the moon which draws its soft veil over small imperfections lent a pathos to her features which went straight to his heart. He felt that in this face his fate was wrapped up, for good or for ill! The eyes which she fixed upon him had a vague entreaty in them, as if she were dimly conscious of his power to harm her. She was rather tall of stature, though not robust. Her hair was of rich brown color with a burnished sheen in it. In her look and attitude there was something which reminded him of a certain Sainte Cécile in the Louvre—something sweetly radiant and spiritual which made the frail flesh, with all its loveliness, seem of minor consequence.

Olyphant had made these observations rapidly, and was just recovering his self-command, when Griffin took him by the arm and presented him to Mrs. Coleman, Miss Ramsey's aunt.

"We had feared we were going to miss the pleasure of your acquaintance," Mrs. Coleman remarked, in a voice that had every now and then a curious jar in it, as if it scraped bottom; "your cousin told us that you were sick in bed."

"So I was, half an hour ago," Olyphant answered, absently; "but I am well now—quite well."

It had not occurred to him, until the question was raised, that the weakness in his limbs had left him. That "withered" feeling of which he had complained was, as it were, blown away. That nightmarish giddiness in his head, which had made him reel like a drunken man while he was trying to dress, had given way to a bright sanity and clearness of thought which amazed him. But deep down in his heart there was a writhing sense of agony, as the conviction stole upon him that the ancient curse was working. Were the powers of darkness, upon whom he had called, anything but a crude fever fancy of primitive man? And had they heard him now, and were they doing his bidding? Were they blighting this fair young life at his side, exhausting the full fountain of her vigor in order to replenish his empty one? It was a diabolical thought. He strove to drive it away; but it hummed in his ears like a torturing tune which makes you march to its rhythm, whether you will or not.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

IV.

Olyphant devoutly hoped, when he arose about ten o'clock the next morning, after a long and refreshing sleep, that Miss Ramsey and her aunt had put themselves beyond his reach. He longed to see the young girl; but a deep conviction in his soul told him that it was best both for him and her that they should never meet again. The same clearness of thought which he had perceived the night before, still reigned in his brain, and the earth seemed delightfully firm beneath his feet. The two things somehow seemed kindred phenomena, flowing from the same source. The mountain-air which streamed in through the open windows was a cool elixir surcharged with health and strength. The sunshine had a radiance in it which penetrated to the innermost recesses of the soul, filling them with light. But, in spite of all, Olyphant was conscious of a kind of internal quivering; and when Griffin congratulated him on his good appearance a pang shot through him. He ate his breakfast with a guilty zest, as if he were stealing it. He was ashamed of his appetite, at the same time that he gloried in it. His sense of taste seemed so extraordinarily keen, the flavors of every dish, though it was nothing but bread, butter, cream, coffee, and brook-trout, were tenfold intensified. The butter especially was fragrant with the breath of the succulent grass in the wide mountain-plains. It was so exquisitely rural, idyllic, and instinct with the sweet pastoral associations of early Aryan times. The coffee was redolent with the Orient, and suggested heavy-eyed odalisques of rich and voluptuous beauty. The trout had condensed in its pink flaky flesh the subtlest life of the mountain-brook; its leaping and plashing joy, its glancing shafts of sunlight, and its dark, cool, delicious pools. Olyphant had never suspected that such enjoyment could be derived from a sense which he had always regarded as the grossest of the five.

He would have eaten on as long as there was anything left on the table if Griffin had not entered, smoking, and vitiated the atmosphere with his foul weed. Though he had never been averse to tobacco-smoke before, it appeared to him now the vilest of odors. The pure, sweet pagan vigor that rioted with joyous tumult in his veins was deeply repugnant to these dusky narcotic fumes. He felt that it would be impossible for him to put a cigar between his lips again.

"This climate, I should say, is just the thing for you," Griffin remarked, seating himself in a big, carved chair; "you look like a different man."

"Oh, yes," answered Olyphant, ruefully; "I woke up with a ravenous appetite this morning; I feel as if I had a bottomless pit within me."

"Oh, no," laughed his cousin, blowing a series of smoke-rings against the ceiling; "that you have in store for you, if you keep on fooling with the black arts, and consign yourself, like Faust, to the devil."

His pleasantry grated on Olyphant's nerves, and with a sudden irritation he got up and left the room. Outside on the balcony he met Mrs. Coleman, who greeted him cordially.

"I am glad to see you looking so well this morning," she said, in her jarring voice; "we had expected to leave to-day for Drontheim and the North Cape, but Winifred my niece is not feeling exactly herself; and so we have concluded to stay here and rest for a couple of days."

"I hope it is nothing serious," he ejaculated, with an anxiety which he found it impossible to conceal.

"Oh, no, only over-fatigue; and perhaps a cold on the top of it. She complains of a sort of withered feeling in her limbs, and a sense of oppression, which she cannot shake off. I think perhaps this delicious air is the best thing for her; and I am going to persuade her to come down and sit here in the sun."

Every word the lady uttered stabbed the young man like a sharp blade. Mrs. Coleman was a large woman of forty-five or fifty, with a majestic carriage and a perceptible mustache. On her cheeks, too, the down would need but little encouragement to develop into whiskers. But, for all that, her face was agreeable and not unkindly, and there was a look of race about her which distinctly stamped her as a gentlewoman. While they were talking, Miss Ramsey came out of the dining-room, her face framed

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

in a mist of lace and a mass of auburn hair. There was a startled anxiety in her eyes, when she saw him; and her first impulse was to turn about and run. She restrained herself, however, and returned his greeting. Her beauty, revealed anew in the daylight, quivered through him like an electric shock. It was again the intensity of expression in her features which impressed him. But there was something incommunicable in this expression; it was directed inward as it were, and not outward. It was illuminated from within, and the light shone through the translucent surface. There was some dear and cherished object, he felt sure, which she constantly contemplated—about which her joys and her sorrows revolved. Olyphant was conscious of a vague jealousy of this object—whatever it was—then of a desire to share it with her. But how to gain the confidence of so shy a creature, who stood like a bird, always ready to take flight—that was the question. If he could but lull his accusing conscience to sleep, and forget what he had done to her, the task might, perhaps, not be beyond his power. But the oppressive sense of guilt which tormented him made him appear ill at ease.

"I hope," he said, as he approached to grasp her hand, "that your indisposition has left you."

"Not quite," she answered, with a vague, sweet smile, "but it soon will."

"Only sit here and breathe, and you will be well," he exclaimed; "no ailment can thrive in this glorious air."

There was a slightly artificial strain in this exhortation, for out of some grisly deep within him rose a whisper which rippled with cold chills through all his nerves.

"She is doomed," this voice seemed to say; "no power in heaven or on earth can save her."

"It is a delightful place, is it not?" she observed, as she accepted the rush-bottomed chair which he placed before her; "no one has any business to be ill here. The air is so full of joyous sounds, humming and buzzing and whirring and warbling. The very grass seems to enjoy growing."

Her voice, so soft and rich and musical, became instantly part of this vast summer symphony, with which it blended in gentle harmony. The fancy flitted through his brain that it was the incantation, working in her blood, which was opening her senses to the subtler life and the hidden music of nature, as it had opened his. He became conscious of a closer kinship with her when he saw how beautifully her eyes lit up at the mention of this murmurous summer chorus. They were both under the same spell now, for good or for ill.

"Don't you think man made a great mistake in becoming civilized?" he asked, after a while.

"You mean, because he lost the keen scent, and sight, and hearing of the savage?"

It pleased him beyond measure to have her follow thus sympathetically the train of his thought. There was an exquisite intelligence implied in this swift divination.

"Yes," he said; "I would give all that civilization has bestowed upon us for a set of fresh Indian senses, capable of bright and vivid sensations. The mere smells of earth and woods and dewy grass, in their primeval freshness, are an exquisite pleasure."

"Yes," she ejaculated, eagerly, "and the bark of the fox in the lonely wilderness—how wondrously wild it sounds in the summer night. I heard it often last week, when we slept in the mountain-inns, and I felt in me the material for a savage."

They sat talking for a long while in this strain; and the winged hours sped unheeded over their heads. They made rapid advances in each other's confidence; for each stimulated all that was best in the other, and rejoiced in the discovery of new points of sympathy. Miss Ramsey's shyness had not the faintest touch of awkwardness about it, it was a native virginal reserve which repelled rather than invited confidence. But this very reserve, when coupled with the sweetness of nature which he found behind it, became doubly attractive to him; it furnished the key-note to her character, and the more he explored this character, the lovelier it appeared to him.

Mrs. Coleman, who had been on a rowing excursion with Griffin and Marit,

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

returned about noon, and seemed in no wise displeased at Olyphant's attention to her niece. As soon as she had ascertained that his antecedents were satisfactory, she favored him with some fragments of her own and Winifred's biography. The latter, it appeared, belonged to an old impoverished Knickerbocker family, of historic distinction. She had a scapegrace brother whom she loved dearly, and for whom she had labored indefatigably. She had established a Kindergarten, written blood-and-thunder stories for *The New York Ledger*, and, in fact, been inexhaustible in her devices for increasing his allowance. Very recently an old great-uncle had died and left her some forty or fifty thousand dollars. She had seized the long-desired opportunity to go abroad; as she would have worked herself to death, if Providence had not interfered.

V.

A Sabbath among the mountains seems purer and more solemn than in the open, smiling plain. All nature unites to keep it holy. The dragon-flies, with their large emerald eyes, as they flitted noiselessly across the water, had a sense of something festal; and their bright and hushed demeanor added to the solemnity of the day. Olyphant imagined that if he could climb the mountain-peak, he might gaze straight into the blue eternity. He was seated in a boat with Winifred, she reclining in the stern with one listless hand hanging over the gunwale, he rowing with long, vigorous strokes. It was two weeks now since they first met, but it appeared to both of them as if they had always known each other. His conscience troubled him. In broken and incoherent sentences he told her of the ancient incantation, and of the use he had made of it. But he was amazed when she said, with soft breathlessness, "I knew it all."

"You knew it?" he exclaimed; "how could you know it, when I had told no one?"

She waited a good while before answering, following the flight of a sea-bird with her eyes.

"Your cousin told me of your curious find," she said; "it was the first evening we met on the balcony. I laughed at the thing at first, but as he went on and described the nights you spent camping in the highlands, where the laugh of the loon echoed so wildly—the mood of the old incantation came over me, and I felt it all."

"But you did not know I was there?"

"No; but while he told so vividly of the strange magic of the runes, I felt the curse creeping all over me. I could not sit still. I rose and shivered."

"Oh, how can you forgive me?" he cried, bowing his head, in passionate sorrow; "it was at that very moment I spoke the awful verse."

"Let us be rational," she replied, after a thoughtful little pause; "you do not believe that the verse harmed me. And I surely do not believe it. I caught cold that night. My imagination was strangely wrought upon by the uncanny tale. I shouldn't wonder if it were my own reluctant credulity which has made me ill. If I could only shake the whole thing off, I am sure I should be well to-morrow."

"Then you bear me no resentment."

"Not at all. But one little grudge I have—that you selected me, even unknowingly, as the most worthless creature on earth."

"Well, you have had your revenge for that. For now the earth itself is worthless without you."

Olyphant confided to his cousin the next day that he had proposed to Miss Ramsey.

He waited impatiently during the entire day for the appearance of the ladies; and was dumfounded when he learned, toward evening, that they had left by the early steamer.

"Oliver," he said to his cousin, "I am going to find this girl wherever she is."

"But don't you see she doesn't want to be found? She's trying to run away from you."

"It doesn't matter. I must find her, if I have to follow her to the ends of the earth."

"Well, that's all right. But by what route do you intend to start for the ends of the earth?"

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"I am serious, Oliver. If you won't go with me, I am going alone."

"Well, if it comes to that, I am afraid to trust you alone. But I tell you, Harry, you ought to have more sense. Love, especially if it doesn't run smooth, is bad for a valetudinarian."

Griffin continued to argue the case with lawyer-like ingenuity, but he made no impression upon the Quixotic lover. Perceiving the futility of further effort, he yielded with good grace, and summoned Marit, who declared that the ladies had taken the southward steamer early in the morning; Miss Ramsey had cried and didn't want to go; but her aunt had scolded and coaxed her, and had threatened to leave her, unless she followed. She was so weak that she had to be carried down to the steamboat landing. Where they had gone Marit did not profess to know, but she had heard the elder lady mention Copenhagen and Rome.

VI.

To trace Harold Olyphant's devious course over the map of Europe during the next twelve months, would be a futile task. His wanderings appeared as erratic as those of a fly under the ceiling. And yet they were directed by a purpose that knew no faltering—the same that led Orpheus to hell and Leander to swim the Hellespont. His cousin, losing patience with him, had left him early in the autumn and returned to the United States. And it was, on the whole, a relief to Olyphant to be alone; for Griffin's sympathy, no less than his criticism, had come to be irksome to him. Moreover, he continued to be physically well, in spite of the pangs of remorse and grief which tormented him. He had a guilty conviction that a fresh fountain of strength had welled up within him; and he could almost hear it gurgle and bubble with exuberant vigor. He succeeded occasionally in persuading himself that it was all a hallucination; that he had done no harm to Winifred Ramsey, and that the course of wisdom would be to return home and devote his recovered health to the perfecting of his great discovery. But his heart rose in passionate protest against this reasoning. Out of the depth of his nature something cried out with wild voices which he could not hush or appease. He must see Winifred and do penance to her, humble himself in the dust before her, and receive her forgiveness. All other things—all purposes and interests which formerly had swayed his life—seemed pale and misty now, in comparison with this one ardent desire. All the world was stricken with a kind of blight. It moved past him like a phantasmal show—a hideous Walpurgis-Night procession, that made the weary eyes ache and the tortured ears vainly refuse to listen.

Olyphant had lost the track of his fugitives at Copenhagen and had not found any trace of them in Rome. But a dim instinct drove him constantly back to the Eternal City, possibly because all roads lead thither, and all the world's exiles find there a home. One morning at the beginning of the winter he was sitting in the reading-room of the American Bank, when he heard some one pronounce distinctly the name—Winifred Ramsey. He looked up, startled, and saw a tall, black-whiskered courier who was inquiring for letters. Two or three, bearing American stamps, were handed to him, and Olyphant managed to catch a glimpse of the handwriting, which, much to his relief, was of the high-shouldered, feminine style. He lost no time in making the acquaintance of the courier, who, for a proper consideration, communicated to him the fact that Miss Ramsey and Mrs. Coleman were at Frascati, at the Villa Falconieri. A dozen other questions trembled on his lips, but he feared to ask them. Was she well? Was she ill? Did she have yet that divine anguish in her eyes, or were they slowly closing to all earthly concerns with an equally divine indifference? Ah, what misery in the uncertainty, and what still greater misery in a knowledge strangling hope!

Olyphant found himself at the railroad depot on the Piazza delle Terme at two o'clock in the afternoon, and rode through the golden haze of the early Roman winter, heedless of the glare of earth and sky. Having arrived at Fras-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

cati, he engaged a donkey of a perverse disposition, which was induced to carry him to the gate of the Villa Falconieri. There was something indescribably melancholy about the place; a calm and cool splendor, an equilibrium as of death. The vast bright sky struck a chill to his heart. The great façade of the villa, as it loomed up among the stone-pines and cypresses, stared at him out of its many windows with a stately remoteness. It looked uninhabited, inhuman. A knock at the tremendous *portone* summoned a *concierge*, who conducted the American through a labyrinth of resonant hallways, where his footsteps re-echoed as in a tomb. It seemed as if he were under some awful spell—that he was doomed to walk on forever. Somehow and somewhere, however, they came to a halt; and the *concierge* opened a door and ushered Olyphant into an ante-room flooded with sunlight, but yet chilly. Then Mrs. Coleman appeared in a trance-like and unaccountable manner, pressed his hand, shed some tears, and said that she was glad he had come. This seemed very extraordinary, considering the fact that she had wasted so much ingenuity in trying to run away from him. Some such sentiment probably escaped him, as he sat *vis-à-vis* with her in that vast and dreary reception-room, and she entered into a defence of her action, declaring that the terrible story of the incantation had taken such hold of her niece that it was killing her. She knew it was a hallucination, but it was on that account none the less dangerous. She had gone away secretly, because she had hoped that new scenes and new friends might obliterate the dreadful fancy. In this hope she had, however, been disappointed. Winifred had grown steadily worse since leaving Norway; and the skill of the most famed physicians of Europe had failed to benefit her. Mrs. Coleman did not wish to bear the responsibility of further interference. She would place no more obstacles in Olyphant's path. So saying, she pushed open the door to the next room, where Winifred lay upon a sofa, before the fire. She was very pale, but her fair face was lighted with a strange brilliancy. Her eyes shone with gratitude and affection as he grasped her hand and fell upon his knees at her side. There was no shadow of suffering visible in her features; only fading of strength, declining vitality. The tide of life was ebbing in her veins. A light-blue cashmere wrapper enveloped her form, and a fine mesh of ancient lace encircled her throat and wrists.

"You are not angry with me, then," she said, meeting with wistful eyes the sorrowful gaze he fixed upon her. "Tell me again that you are not angry with me."

"Why should I be angry with you, dearest?"

"Because I ran away, when you had told me you loved me. But I did not do it willingly."

"I know it. Your aunt has told me about it."

"And how did you find me? Did she write to you?"

"No. I spent half a year seeking you, everywhere. To-day I met by chance a courier who knew where you were."

It was touching to see the joy that kindled in her eyes and illuminated her features as he spoke.

"I shall not be afraid to die now," she whispered, giving his hand a faint pressure. "I was only afraid, when I thought you had forgotten me."

He could say nothing, but sat struggling with a confession—a prayer for forgiveness—he knew not what; only that he might relieve the weight of woe that oppressed him. But what had he to confess? He had told her all. He wrung his hands silently, opened his lips as if to speak, but said nothing.

"Oh, you must not die!" he cried at last, with a sudden, piercing pain; and, jumping up, began to pace the floor; "it is all a dream, a horrible nightmare. Shake it off. Here, take my hand. Come with me into the garden. Do you not love me? Why, then, should you die now when you are just beginning to live?"

He paused, astonished at his own violence. But still more amazed he was when he felt the firm grasp of her fingers, and he saw Winifred rise, slowly, gropingly—but still rise, and, leaning upon his arm, walk across the floor. A half-timid exultation shone in her

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

eyes, as she became assured that her limbs supported her. He wrapped a shawl about her, pushed the door to the hall open, and with slow and tentative steps she moved at his side, through the white desolation of the long, empty corridors. Fearing to overtax her strength, he put his arms about her and carried her down the stairs into the garden. There the flood of sunshine nearly blinded him; but the cypresses cut their black silhouettes out of the radiant blue of the sky and afforded relief to the wearied vision. There was a hopeless perfection in the day which annihilated him. All things seemed evanescent and unreal. Even the beloved form which clung to him was in some strange way slipping from his embrace; a crowd of bright, airy demons, inexorable but not abhorrent, were tugging at her garments. As she stood amid the cypresses, in the glare of the pitiless sun, there was the remoteness of death in her beauty—a chill alienation which made him shiver. What was that terrible force to which he had surrendered her? Was there no counter-charm, no spell that could redeem her from the hungry deep? There were invisible hands outstretched through that awful, silent glare, and he felt them flash about his head; from above, from below, from everywhere. With a cry of uncontrollable horror he clasped her once more in his arms, and prayed a wild, distracted prayer; but he knew not to whom he addressed it; and it seemed after a while that the God whom he entreated was dead. She lay like a weary child in his arms; resting her head upon his shoulder, smiling vaguely toward the moss-grown Faun that was playing his broken reed under the ilexes. There was something quivering through the light—a kind of dumb anguish, a rigid, shining despair. Then there came a chorus of strange wild voices, flute-like, incorporeal, and remote. There was laughter in them—mirthless and mocking—like that of the loon in the Norseland wilderness. He fancied he heard in these ethereal sounds a semblance of her name; and, shuddering, he pressed her closer to his breast. In the ceaseless pulsation that throbbed in the air about him he recognized notes of that wondrous summer chorus which had burst upon his awakened sense after the reading of the incantation. They stormed in upon him—lightly and noiselessly—sang bright ditties of a sweet, æolian remoteness in his ear, as if to beguile his thought away from her whom he held in his arms. For he felt that, as long as he held her closely encompassed with his love, as long as all the energy of his affectionate solicitude was concentrated upon her, he could not lose her. For an hour the battle raged noiselessly, but fiercely; he tried to move away, but stood as if riveted to the spot. Again and again the hushed, wondrous melody allured him, and his thought began to wander; a sweet weariness stole over him; all things except rest—a deep, all-obliterating oblivion—seemed of small moment. All impressions became blurred; only a vague tenderness filled his heart for someone or something that was, for some reason, very dear to him. There was a rush as of water, cool and refreshing, in his ears, and the flash and sheen of bright, emerald currents before his eyes. The world lost itself in a golden mist of lovely sights and sounds. He sank into a swoon. He knew not how long he lay unconscious; but he woke up with a chilling horror; he tried to scream, but could not. There was a weight upon his breast; and his clasped hands, as they relaxed, touched a cold forehead. He shivered; a sense of desolation stole over him. Raising himself with great effort—for he seemed stiff in every joint—he saw what he already knew before. Winifred was dead. The peace in her face was sweet and profound. Not a trace of trouble or of struggle was visible. It was the peace, not of marble, but of the sea and the sky on a perfect day. She had never been more beautiful.

Olyphant sat staring at her with heavy, vacuous eyes. He kept his feelings desperately at bay, because he feared their vehemence. How vast the sky was! And the mountains, how blue and airy and divinely indifferent! What is life, that we should deplore its loss; or death, that we should dread its coming? But this one life, which was so dear to him, why should it be chosen for extinc-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tion out of all the worthless millions? Remorse hovered like a shadow in the background of his mind; but he could not bring himself to believe in it. A strange chill numbness settled all over him, and he felt nothing, except a dull heartache.

The harsh scream of a bird of prey aroused him. He arose slowly, lifted the dead body in his arms, and bore it back toward the villa. And again he seemed to himself to be under a spell which would compel him to march on with this burden forever. The future through which his path lay stretched out before him as a vast, blank, sunlit vista which made his eyes ache. The silence oppressed him; the emptiness terrified him. The endless procession of hours, white, black, and gray, which rose out of the deep—what should he do with them—how was he to traverse them, with this grief never to be appeased, with this burden ever to be borne?

HOW TO FEED A RAILWAY.

By Benjamin Norton.

THE commissary or supply department of a railroad is not unlike that of a large army. Like a vast army its necessities are many, and the various departments which make up the whole system must be provided with their necessary requirements in order to accomplish the end for which it is operated.

If, again, we regard a railroad as a huge animal, the quantity of supplies needed to fill its capacious maw is something overwhelming. It is always hungry, and the daily bill of fare (which includes pretty much everything known to trade) is gone through with an appetite as vigorous and healthy at the end as it exhibits in the beginning. Yet how few there are who realize the important part this one feature plays in the operation of the thousands of miles of railroad throughout the world. Upon the proper conduct of this department depends very largely the success of any road, so far as its relation to the stockholders is concerned; for while, as has been the case in the past, combinations and pools have aided in maintaining rates, and have served to increase the income, and attention has been paid to securing additional business in every possible way, the "out-goes" have often been overlooked, to the detriment of dividends and the general welfare of the property.

The supplies must be furnished in any event, in order that the various departments may perform their allotted duties—coal for the engines, stationery for the clerks, ties and rails for the tracks, oils for the lubrication of the thousands of axles daily turning, passage-tickets for the travellers, and a thousand and one things which are absolutely necessary for the safe and efficient conduct of every railroad in active operation. Each item serves its purpose, and, properly assimilated, keeps alive all the functions of one vast and complicated system. It is easy to see, then, the importance, first, of proper economy in buying, and then a correct and systematic distribution of all supplies. On the Philadelphia & Reading Railroad, for instance, the annual supply bills aggregate more than $3,000,000, covering such supplies as those just mentioned, and, in fact, everything which is purchased and used in the operation of the road; so that on a large system like that, the commissary department requires no end of detail, both in the purchase and the distribution of all material.

The expenditure for lubricating oils, waste, and greases alone amounts to more than $150,000 per annum, while the outlay for fuel represents about $1,200,000, and this is comparatively a small sum, since that road is a coal road, so called, and the cost for fuel, as a matter of course, is reduced to a minimum. There the store-room system, which has now been pretty generally

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

adopted by many of the larger roads, is fully exemplified. With a General Store-keeper in charge, all supplies purchased are accounted for through him, and distributions are made daily among the substore-rooms, which are located at convenient points; and they in turn distribute among the various departments, for consumption, all accounting daily to the General Store-keeper at Reading.

To give an idea as to the quantity of material required in the service on such a road, it may be stated that from twelve to fifteen car-loads of supplies per day are shipped to various points. When we consider that an ordinary car will carry from fifteen to twenty tons of freight, we find that the annual requirements will average about four thousand car-loads, or, say, about fifty thousand tons, and if all the cars were made up into one solid train they would occupy fully twenty-five miles of track, and consume an hour and a half passing a given point running at the ordinary speed of freight trains.

To account carefully for all this requires necessarily a large army of clerks and other assistants, though, with the fundamental principles correct, it is no more difficult to account for large quantities than for small. The supplies are purchased in the first instance, delivered at the General Store-house, are there weighed or measured and receipted for, are then distributed on requisition, and finally delivered to the several departments when needed; are charged out to the various accounts, after consumption, and all returns and records are finally kept on the books of the General Store-keeper.

It would be a large army indeed which would require so much for its maintenance; and remembering the hundreds of roads, small and large, throughout the country, the measure of one's comprehension is nearly reached in estimating the amount of money and the thousands of tons of material represented.

If the buyer of railroad stocks for investment, besides looking into the returns of freight and passenger business for his decision, would investigate carefully the method adopted for the purchase and distribution of supplies on any road in which he may be interested, he might get information enough to satisfy himself that a large portion of the earnings were dribbling out through this department, and that, as a result, his stock might eventually cease to be a dividend payer.

In the matter of buying, the result depends entirely upon the purchasing agent, and this position must necessarily be occupied by a man of honor and integrity, coupled with a reasonable amount of shrewdness and aptitude for such business. As this department covers to a greater or less degree pretty much all the known branches of trade, the buyer cannot, under ordinary circumstances, thoroughly master the whole field as an expert; but he can nevertheless inform himself in the most important articles of manufacture to the extent of preventing deception or fraud. The field is extensive, and the sooner railroad companies realize that the purchasing agent is not a mere order clerk, the sooner they will discover that their disbursements for supplies are very much less, and that the chief part of the leakage has found its source in this very department.

Exactly the same principles are involved in this matter as in the case of a thrifty proprietor of a country-store, whose profits each year depend materially upon the closeness and care with which his stock in trade is purchased from the wholesale dealers in the large city. A purchasing agent's experience is varied in the extreme, dealing as he does with all classes of salesmen and business houses. There is no end to the operations which skilful salesmen go through in offering their stock; but after some experience a sharp buyer will be able to fortify himself against the best of them—even against the clever vender of varnishes who disposed of one hundred barrels of his wares in small lots to different buyers, on a sample of maple-sirup. On the other hand, a salesman who, when a buyer asked him if his oil gummed, replied that "it gummed beautifully," lost the chance of ever selling any goods in that quarter.

As has been said, the ordinary or general supplies consumed in the operation

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of the average railroad include almost everything known to trade. Tobacco for the gratification of the taste of a gang of men out on the road with the snow-plough is not outside the list; and even pianos, for some trains, since the days of absolute comfort and possible extravagance have begun, for the benefit of passengers setting out on long journeys; nor do we lose sight of books, bath-tubs, and barbers. The practical feature involved, however, calls for an endless variety of expensive as well as inexpensive materials.

It is a safe rule to follow that anything which goes into the construction either of track, equipment, or buildings, should be the best. Care should always be exercised against the use of any material the failure of which might be the cause of loss of life, and consequently result in heavy damages to the company. Iron alone enters so extensively into railroad construction and operation that it is safe to say three-fourths of all manufactured in this country is consumed directly or indirectly in this way; and besides its use in rails and fastenings (the latter including spikes, fish-plates, and bolts and nuts), and in the many thousand tons of car-wheels and axles annually required, must be reckoned the almost unlimited number of castings daily required in the way of brake-shoes, pedestals, draw-heads, grate-bars, etc. The lumber and timber for buildings, bridges, platforms, and crossings, and the large quantity of glass which is necessary, are among other large items of expenditure.

Lubricating and illuminating oils, paints and varnishes, soaps, chalk, bunting, hardware, lamps, cotton and woollen waste, clocks, brooms, and such metals as copper, pig tin, and antimony are only a few of the many articles of diet which a railroad requires to keep body and soul together, and give it strength to perform the great duty it owes to commerce and the public. After they have all served their purposes, such as cannot be worked over again in the shops, and are not entirely consumed, are consigned to the scrap-heap under the head of "old material"—an all-important consideration in the economical management of any road. On many roads very little attention is paid to the sale of scrap. As a general rule, the purchasing agent has charge of it, and if he shows any shrewdness in buying, he will exercise more or less ingenuity in selling. Most railroad scrap has a fixed value in the market. Quotations for old rails, car-wheels, and wrought iron are found in all the trade journals; but as in buying one can usually buy of someone at prices less than market price, so in selling he can often find a buyer who is willing to pay more than the regular quotation. As it is found not wise in the long run to purchase ahead on some prospective rise, so in selling it is equally true that holding scrap over upon the possibility of a rise in prices is not always for the best advantage.

There has always been a demand for old iron rails, and recently use for old steel rails has been found. They are worked over at the rolling mills into crowbars and shovels, spikes, fish-plates, bolts, and other necessary things to be employed in construction and maintenance. Not long since, an experiment with old steel rails was successfully performed, whereby they were melted and poured into moulds for use as brake-shoes. The result showed a casting of unusual hardness which would outwear three ordinary cast-iron shoes. This opens up an entirely new field in railroad economy, for with ordinary foundry appliances accumulations of old steel rails can be worked over and cast into all sorts of shapes and patterns to better advantage than selling them at a nominal price to outside buyers. While worn-out car-wheels will generally bring more money from wheel manufacturers than they command in the open market, it has not always been found the best policy to compel the mill from which the new wheels are purchased to take too many of them. It is apt to encourage the use of too much old material in the manufacture of the new; and while the company may consider that it is realizing much more money on sales of the old wheels than the market price, it does not take into account the inferior stock it is getting back, or the fact that possibly when the mileage is reckoned the wheels have signally failed to

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

run as long as they ought. In the aggregate about ten per cent. of the original cost of all supplies purchased is realized out of the sales of old material. From cast-iron wheels and old rails, however, the percentage is much larger, for while at present new passenger car-wheels of this class, weighing about five hundred and fifty pounds, are worth about ten dollars each, they will bring in the market, when worn out after running say fifty thousand miles, about twenty dollars per ton. Four wheels go to the ton, which represents five dollars per wheel, or fifty per cent. of the original cost. With old rails the percentage is even higher, in the present condition of the rail market. Old iron rails are worth within four or five dollars of the price of new steel, and the old steel about seventy per cent. of the price of the new. These high percentages assist in making up for the materials which are entirely consumed in the service, and which never form a part of the ordinary scrap heap, such as oils, waste, and paints.

While the majority of general supplies just mentioned briefly may be arranged for as required and purchased from month to month upon regular requisitions, there are certain staple articles which are provided for in advance by contract. Among them principally are the engine-coal, rails and ties, stationery, passage tickets, and time-tables. More money is expended for such supplies than for any others, and contracts with responsible business houses, for their delivery at fixed prices for the limit of at least a year, are generally made to insure, in the first place, the lowest market rates, and again, to make the delivery certain.

Locomotive fuel is the largest single item of expense in the operation of any road, the consumption of it running up as high as a million tons per annum on some large roads; and while there are a few exceptional cases where wood is used as fuel, coal is the necessary element in nearly every case in America to-day.

Of the two general varieties—bituminous or soft, and anthracite or hard—it is safe to say that bituminous coal is the more economical, assuming that the grade employed is the best, this economy lying both in the original cost and the fact that the bulk of it goes to serve its purpose, there being comparatively little waste in the way of ashes; while the anthracite produces many ashes and clinkers, requires much more care and attention on the part of the stoker or fireman, and costs, as a general rule, about thirty per cent. more. Economy, however, should not be carried too far in any branch of the service, and if the passenger traffic be heavy the use of soft coal may be a great detriment. To a traveller there can be nothing more disagreeable than the smoke and cinders emanating from it; and if, besides this, the road be an especially dusty one, the combination of dust, smoke, and cinders will be quite sufficient to turn the tide of travel in some other direction and over another route.

For freight service bituminous coal is decidedly the best, and perhaps might not be out of place on short local passenger trains; but the company that provides hard-coal-burning engines for passenger trains, and soft-coal burners for freight, does about the right thing, and economizes as far as practicable in this particular. In making contracts for this important commodity the necessity of careful tests in advance is very apparent, and such trials are generally left with the best engineers and firemen; otherwise it might be difficult to get at all the qualifications. On some roads inducements offered to firemen have brought the consumption of fuel down to the most economical point, and it is surprising how much depends upon their good judgment in this matter.

Now that heating cars direct from the engines is coming into general use, and State legislatures have given the subject their consideration, the consumption of the domestic sizes of coal as fuel in cars is growing less; but this, too, is still a very important matter.

Stationery is not only a very important item, but also an expensive one. This includes all the forms and blanks used in the conduct of the freight and passenger business, and there is an endless variety of them—the inks, pens, pencils, mucilage, sealing-wax, and envelopes, besides many other odds and

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ends. Perhaps the envelopes represent one of the largest single items of expense in this line. The hundreds of thousands of them used in the course of a year, even at low prices, means an outlay of many thousands of dollars. Agents must send in daily reports, there must be covers for all the correspondence passing between the different departments, while the daily average amount of outside correspondence is very considerable. It is surprising how many dollars might be saved in this direction, not only by a judicious contract, but by a careful use of the supply.

When a railroad company takes up the question of time-tables it has a matter of importance to handle, which on many roads receives very little consideration. When the passenger traffic is heavy the number of travellers during the year running into the millions, the demand for time-tables is very large. This refers directly to the time-table sheets or folders, which every company must keep on hand at its stations, and in other public places and hotels, for the convenience of the traveller, in addition to the printed schedules which are framed and hung up conspicuously on the walls of its waiting-rooms. A neat and attractive folder for general circulation is very desirable, particularly if competition is very strong. There is more virtue in a neatly made up schedule of trains than one would suppose. One in doubt is apt to reason that the road is kept up in a corresponding condition, and that the trains are made up on the same plan, and consequently would prefer to go by that route rather than by one whose trains were advertised on cheap leaflets.

Fifteen thousand to twenty thousand dollars per annum for envelopes alone is spent on some roads, and twice as much more perhaps for time-tables.

Passage tickets, including all varieties of regular and special tickets, such as mileage books or coupons, family tripbooks, and school tickets are also an item of large expense, the annual consumption covering many tons, which once used are of no value save as waste paper; yet they are absolutely indispensable in the operation of the road. Yearly contracts for these are made, and while the actual cost of a single ticket may not exceed *one mill*, the aggregate on a road carrying fifteen million to twenty million or more passengers per annum is considerable.

To induce the public to travel, and encourage shippers to send their freight to market over any road, attention must first be paid to the condition of the track and rolling stock.

It is not economy to allow anything to be out of repair, on the supposition that it is less expensive than it would be to spend comparatively little from day to day to keep it up. The day of reckoning will come in the end, and the sacrifice will be considerable. As the track is the fundamental feature, the cross-ties or sleepers and rails should be the best. Iron rails are practically out of date, and it is fair to assume that the time is approaching when wooden ties will be things of the past. Where the traffic is light, heavy steel rails may not be necessary; but it has been generally found economical to put in use rails which do not weigh less than sixty-seven or seventy pounds to the yard; an even greater weight than this is not ill-advised—they require fewer cross ties to the mile, and in consequence the force of men required to keep the track in condition is less. Light rails are soon worn and battered out on a road over which heavy engines are run and large trains are hauled. The powerful locomotives now built require a well-kept track and a solid and substantial roadbed. Heavier and faster trains have tended to reduce the average life of rails, even though the weight of the rails has also been steadily increasing. Circumstances vary on the different roads, but it is safe to say that eight to ten per cent. of all rails in the track must be renewed every year. This brings the average life of the steel rails down to about twelve years, under ordinary conditions. On some divisions, however, where the traffic is frequent, and in yards where a good deal of switching is done, and the rails are under pressure constantly, the average is, of course, very much less—even as low as two or three years.

Aside from the durability of the timber employed, plenty of face for the rail

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bearings, and uniform thickness and length, are very important requirements in contracts for ties. While white oak is generally considered the most durable for this purpose, the growth of this timber is limited except in certain sections of the country, so that cedar, cypress, chestnut, and yellow pine are more commonly used than any other class. The millions of them used for renewals and new roads each year are gradually reducing our forests; and, like some of the European roads, we shall some day fall back upon metal, which (while its life may not be measured) will make so rigid a track that the traveller over long distances will be worn out with his journey, and the rolling stock will require frequent repairs and overhauling. The practice of creosoting cross-ties is growing rapidly, and this tends to increase their durability three or four times. While the first cost of such ties may be double that for the untreated timbers, the result in the end is economical, for the labor alone required to take out an old tie and put in a new one costs at least twelve cents.

The general store-room is properly the intermediate stage, so far as supplies are concerned, between the different departments of the road and the Auditor, who charges up all material used to the different accounts into which his system is divided. Properly, everything in the nature of material, however small, directly or indirectly passes through the Store-keeper's books. An account is kept with each locomotive, station agent, switchman, and flagman, so that to a penny everything consumed in the operation of a road is accurately known. To accomplish this the Store-keeper, of course, must be a good accountant, and at the same time be more or less of an expert in railroad material. Under an economical administration of his affairs he is able to save a great deal of money for his company. By his system, with the aid of data from the mechanical department, he can tell the average number of miles run during the year to a pint of oil or a ton of coal; the number of pounds of coal consumed per mile run, as well as the number of pints of oil for the same distance. He can give in detail the cost in cents per mile run for all the oil, tallow and waste, fuel, and other supplies consumed, and can account to a nicety for all the lanterns, brooms, hardware, and other material which he has received and distributed.

The following statement of averages represents fairly what it costs to run a locomotive under ordinary conditions:

Averages.

Number of miles run to pint of oil	15.32
Number of miles run to ton of coal	46.17
Number of pounds of coal per mile run	48.62
Number of pints of oil per mile run	0.06

Cost in Cents per Mile Run.

	cts.
For oil, tallow, and waste	0.32
For fuel	7.42
For engineers	3.60
For firemen	1.79
For wipers and watchmen	1.25
For water supply	0.49
For supplies (miscellaneous)	0.10
For repairs	2.40
Total	17.37

He will find that some engineers and firemen are more extravagant than others, and that some station agents and flagmen do not perform their respective duties with near so much regard for economy as others do under exactly similar circumstances. In such cases a report is made and a reminder from the Superintendent follows, calling attention to such carelessness. The result is apparent at the next monthly comparison.

Prompt payment of all supply bills helps to insure economy, and any company unable to make its payments promptly and regularly, suffers to a greater or less extent always; for a firm not able to know whether its accounts are to be settled in thirty or ninety days cannot afford to allow all the discounts which it otherwise might, and this may mean an extra expense every year of many thousand dollars.

So far as the employees are concerned, it is for the best interests of the company to have a fixed time for the pay-day. They need their money and should get it regularly. Any road on which the men are paid at uncertain times may be subject to incalculable losses. It is apt to provoke dishonesty and carelessness. The road which is

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bankrupt and forced to pass its pay-day to some indefinite time is always hampered by some of the most inferior class of servants in the market. Except in some instances where special laws have been passed requiring railroad companies to meet their pay-rolls oftener, once each month is generally recognized as pay-time, and on large roads it would be simply out of the question for the pay-rolls to be made up correctly and the men paid off sooner. The Paymaster is the wage-distributing medium, and by virtue of his generosity will command as much respect as the President of the road. No officer's face is more familiar than his, and surely no one connected with the institution is looked for with more eagerness by the hard-working employees. It is no easy task he has to perform, and the responsibility for the millions of dollars paid out in this way annually is very great. This responsibility, however, has been very much reduced on some roads, where wages are paid by checks entirely. Under some circumstances this system will not work satisfactorily, especially on a road running through a sparsely settled country. The employees may have to stand a good round discount to some store-keeper or tradesman in order to secure their money. The best and most satisfactory return for services can be nothing less than solid cash; it encourages better attention to business and relieves the men from possible annoyance and inconvenience. The Paymaster's car, which is virtually a moving bank or cashier's office, and arranged conveniently for the payment of money to the men as they pass through, is generally run "special," upon notice in advance to all foremen or heads of departments, either by telegraph or, as on some roads, the display of special signal flags, which are carried on the front end of the locomotive of some regular train the day before the car is run over any division. In this way all men employed along the line of the road, whether at or between stations, are notified of the Paymaster's coming, and it does not usually require any other inducement than this to bring them all out. There is nothing that will prompt them to jump higher and run faster than the whistle of the pay-train as it comes around the curve to the station. Men have been known to forget their names, and do other foolish things under the excitement of drawing their month's pay. The fellow who said he could not write all his name when requested by the Paymaster to sign the pay-roll, but offered to write as much of it as he could, after some deliberation made a cross on the sheet with all the care and nicety he could muster. Others who could not write have been very slow to admit it, and plead haste as an excuse for not doing so. So far as Italians are concerned (and what railroad service is now complete without its gang of Italian laborers?), they are usually designated by numbers, and in some cases their foremen have thought it well to name them after prominent statesmen or other public men, or possibly some of the head officials of the company. To run across twenty-five or thirty Daniel Websters on the same road is not surprising, and the President of the company himself is liable to have a half-dozen namesakes throughout the different divisions of his road. A cage of jabbering monkeys would not be a more amusing spectacle than some gangs of Italian laborers receiving their month's pay.

The pay-department can be made very systematic, and to promote economy and accuracy it is absolutely necessary that it should be. The Paymaster is not simply a medium through whom wages are distributed. He may be one of the most important officers of his company, and ferret out frauds and dishonesty which otherwise might never be discovered. He knows all the men, and they, of course, know him. In fact he is the only one connected with the road whose recognition among all the employees is absolutely certain.

Some idea of the enormous amount of money earned annually by the railroad men in this country may be formed from the statement that it requires about $1,000,000 per month to pay twenty thousand men, and there are a good many roads on which the average monthly pay-rolls of each embrace from fifteen thousand to twenty thousand names; in some cases even more.

When the pay-rolls are all turned

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

over to the Paymaster, properly approved by each head of department, he notifies the Superintendent or Trainmaster of his proposed trip, mapping out in detail the route, which is usually the same each month. The signals or telegrams are sent ahead to the various foremen, and the car is ordered ready for the journey. The funds are arranged in denominations to suit the circumstances, with plenty of small change, and enough money for a day or two only at a time is provided. The pay for the flagmen at crossings, and switchmen on the road, as well as for the agents at small stations, is generally done up in envelopes, and, as the train speeds by, the packages are handed or thrown out at the proper places; and sometimes, to warrant a safe delivery, a forked stick is used, into which the envelope is put, thus giving it plenty of weight and saving it from being tumbled about promiscuously on the ground. Much time is saved in this way, and the pay-train is able to keep well out of the way of any regular train which may be following. So the pay-car flies along, only stopping at some large station where the number of employees engaged is sufficient to warrant it. These are quickly paid off, however, and the journey is continued. Perhaps at some junction a freight crew is met; and as these fellows have to get their money when they can, a stop is made on the road to give them a chance to do it. At some station are found two or three gangs of section or track men, a watchman, an agent and his assistant, a pumper, and possibly a mail carrier. Perhaps a discharged trainman will turn up also, who may have part of a month's pay coming to him.

Later in the day it may be a shop gang of five hundred or one thousand men; consisting of carpenters, painters, machinists, and boiler-makers, and these are paid in order, each set of men by itself. There is no noise or disturbance, everything goes like clock-work, as all pass through in regular order, each gang or class preceded by its foreman, and the men arranged in line in the order in which their names appear on the pay-rolls. When night comes, and two or three hundred miles of road have been covered, the balance of the funds is carefully locked up in the safe on board, the car run in upon some convenient siding, and the engine housed for a wiping and a thorough preparation for the next day's run. The car is generally provided with comfortable beds for the Paymaster and his clerks, and during the paying-off time they practically live in the car. This insures early starts in the morning, and on large roads the necessity for haste is very apparent, where possibly two or three weeks are consumed each month in paying off the rolls.

The average traveller, spinning across the country at forty miles an hour, is not apt to think of the countless details involved in the make-up of the train in which he rides or the track over which he is wheeled; but when he considers how safely the millions of passengers are annually carried over the one hundred and fifty thousand miles or more of railroad in this country alone, he may be brought to realize that quite as much depends upon the quality of the material entering into the construction of the train and tracks as upon the efficiency of the engineer in the cab, or the conductor, brakeman, switchmen, and train despatcher who perform their respective responsible duties in connection therewith. Feeding a railroad, then, means a great deal more than the majority of mankind supposes.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE NEW POVERTY.

By George Parsons Lathrop.

I

IN the nineteenth century, you know, things were so entirely different," said Mrs. Cristopher, with a sigh, gazing from one of the windows of her summer villa-car, which had been sidetracked in the Catskill Mountains, and now commanded a superb prospect of green glen and craggy steep.

The afternoon was a glorious one in the summer of 2032. At this period, I may explain, the ownership of land being vested in the government, and everybody having become rich, many persons had taken to living in house-boats and villa-cars, which could be moved from place to place at will, and supplied a convenient method for avoiding the rent exacted upon land. For, in spite of universal wealth, the old instinct of the rich for dodging taxes, or anything that resembled a tax, survived.

"Yes," assented Mrs. Felch, in response to Mrs. Cristopher. "Our ancestors had a great deal of liberty. It seems almost incredible, now, that in those days anyone who accumulated a small amount of money could actually own and control his or her own bit of land. Everybody is complaining of the overcrowded condition of the country, now, yet all the while there are thousands and thousands of houses standing empty in the deserted cities."

"True enough," said her sister. "Look there!" she exclaimed, pointing down the glen; for at that very moment, as if in corroboration of Mrs. Felch's statement, another villa-car of ambitious architecture and ample dimensions came crawling over the opposite ridge, on the rails thrown out by the automatic "track-layer" at the front door; and a third residence was seen approaching up the glen toward the temporary site occupied by Mrs. Cristopher. "We have had only a few hours' rest and retirement," that lady went on to say, in a complaining tone; "and here are some new people already coming to invade our solitude."

"I see what they're up to," answered her sister, Mrs. Felch. "They know we've got the best site here, and they want to crowd us out."

Mrs. Cristopher merely murmured: "I wonder who they are."

"We shall soon find that out, if we wait," Maria Felch declared. Then, taking down a prettily ornamented little contrivance from a shelf near the window, she proceeded to busy herself with it as if to pass the time. This apparatus, known as a "mint machine," was used for coining money; every person being obliged to take the rations of gold supplied by the government, and to return the larger part in freshly stamped coin. The mint-machine comprised a bottle of liquefied gold and an ingenious mechanism which turned the gold into pieces of various denominations as fast as it could be poured through a tube controlled by several keys, on which Mrs. Felch played rapidly with her fingers; in the same way that people formerly played on the antiquated type-writer (superseded, in our day, by the swift thought-writer).

Mrs. Cristopher, for her part, opened the drawer of a table by her chair; and, extracting from it a bundle of papers, she began to do up in neat bunches a number of visiting-cards. "There!" she observed, presently. "I have put up a dozen of my cards and my husband's for the Fergusons. Do you think that'll do?"

"I don't know," said Mrs. Felch, thoughtfully, pausing in her work for a moment. "Aren't you quite intimate with the Fergusons?"

"Well, I suppose I am," Mrs. Cristopher admitted, almost reluctantly. "That is, I have seen them fully twice within the last three years. But then, you know, they are so frightfully rich that, to tell you the truth, Maria, I hesi-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tate to encourage the intimacy. Moderate wealth like ours may be well enough, and is not a positive drawback to our social standing. But when people get to be so miserably rich as the Fergusons are, I fear it injures our position if we have too much to do with them."

Mrs. Felch meditated. "Very likely you're right," she assented. "But it's a great temptation. The Fergusons are pleasant, well-behaved people, in spite of their money.—Have you decided about the Laidlaws?"

"They're on my list," was the answer. "I shall send them twenty-four cards for the year. If they draw them all, that will make two calls a month."

"And if they don't return any," Mrs. Felch responded, corroboratively, "you may consider that you have taken a good step forward socially, Sylvia. But are you sure the Laidlaws are really and truly poor? There are so many pretenders nowadays—mere impostors."

"I know it," Sylvia replied. "I can hardly understand the impudence and assumption of some people who set up to be poverty-stricken, when everybody knows that they have incomes almost as large as those of the old, extinct Railroad Kings. But Ebenezer Laidlaw—why, he's the chief light of the Anti-Wealth party. His people began in a small way, a few generations ago, as large, vulgar capitalists. But they soon became only moderately rich; and his father rose to be quite respectably poor. Ebenezer and his daughter are genuine beggars. They go from one stationary hut to another, on foot; and they actually pay rent to the government! What better proof can you ask, of honest poverty?"

"Do you know where they are now?" Mrs. Felch asked.

"No. But I'll set the ethergraph and the Polar Current at work, to reach them."

With the ethergraph, which so deftly utilizes the particles of the ether for transmitting messages, my readers must be sufficiently familiar. But in the old days of the twenty-first century, the so-called "Polar Current"—which supplied a motive power for conveying solid packages in any direction around the globe, by the then newly discovered system of hot and cold blasts from the Equator and the Poles—was a comparative novelty. This, as we know, has been wholly superseded by the application of planetary and solar attraction to the business of mundane express companies. A large part of the population of the United States being migratory, it was the habit of people in what was then called good society to send each other, by the Polar Current Despatch Company, visiting-cards enough to last for a whole year. The recipients drew from the packages as many bits of pasteboard as would represent the number of calls they wanted to receive, and returned the rest. In this way the social requirements were easily met, without the possibility of any misunderstanding.

The Tenth Populiad—or that portion of the twenty-first century of which I am now writing—was also a curious period in some other respects. A custom similar to that of the visiting-cards was that of holding "automaton" entertainments. Everybody in good society kept an automaton, made in his or her own likeness; and, as these figures had been brought to a high state of mechanical perfection, they were sent to represent the owners at balls, weddings, and receptions. Society "rosebuds" and young men had to order new images frequently, as they changed in appearance. But when they grew older they were spared this trouble, because it was pleasanter to be represented by the automaton of their youth than by one which would exactly depict the ravages of time. People who had not invested in an automaton until comparatively advanced in years were known to have had it retouched and painted up youthfully when they wanted to make an especially agreeable impression. The automata were always wound up for a certain amount of small talk, and contained receptacles for written communications addressed to other automata, to be delivered to them and carried home. Another advantage was that, while the owners, at home, listened to opera through the telephone, they could have their automata partially denuded and displayed in their box at the opera-house, with perfect safety to health and modesty. Life, in fact, was made very easy in every way. Yet the result was

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not always contentment. Although every process of mechanics, manufacture, and domestic economy had been reduced to a manipulation that required but little effort, this very facility of doing things was the cause of new trouble.

For a long time Dust had remained an almost unconquerable problem. But this had now been mainly overcome by sundry devices, among them the use of dew collected in storage batteries. But the housekeepers—the mothers, wives, and sisters—who it was thought would be the most benefited by this improvement, were the first to complain. For untold centuries women had been accustomed to fight against Dust. They resented being thrown out of employment by the so-called modern improvement; and declared that it had reduced them almost to the level of men, who never had "dusted things" at all. Frequently a wife who had had words with her husband in the morning, before he went off to business, finding herself deprived of her natural resources in looking after the house and the sweeping and dusting, brooded over her injuries. She summoned the divorce court by ethergraph. The court came, and a divorce was decreed before dinner-time. So that when the husband reached home again, he found that either his house or his wife—sometimes both—had travelled off to some distant point; and, bowing to the inevitable—or, rather, trying to scrape a bowing acquaintance with it—he had to begin life over again.

But the universality of wealth and the increase of conveniences had more serious results. They made people ambitious to become poor. The rich had become a grovelling, miscellaneous rabble; and the comparatively few persons who, in spite of circumstances, had chosen to remain poor, were beginning to enjoy an abnormal degree of consideration, influence, and power. It was even hard to find juries to convict any wrong-doer who happened to belong to the indigent class. But, as the crowd is apt secretly to envy and admire a privileged class, even while denouncing it, so the reformers of the Tenth Populiad—at the very moment of declaring the ascendency of the poor to be full of injury and danger—urged that everybody ought to become poor. In order to secure this object, they formed a revolutionary Anti-Wealth Society. Mrs. Cristopher's husband was a member of the Society, and Mrs. Cristopher herself, it must be owned frankly, was known as a toady to the poor; while their son Herbert was a revolutionist still more advanced than either of them.

Their villa-car was large, irregular in outline, handsomely appointed, and built in sections, with independent track-layers for each part, so that the house could be divided and the different parts could journey separately in various directions. At present the edifice was reunited, Mr. Cristopher and his son having just returned with one of the wings, in which they had been off on a fishing-trip. They entered the room while the two ladies were talking. Herbert—a handsome, athletic, blonde-bearded fellow—was attired in a complete and very becoming suit of rags; for in order to identify himself fully with Anti-Wealth ideas, he wore the recognized costume of his party. On seeing him, his mother and his aunt rose, as a token of respect to an acknowledged superior; while Herbert seated himself uncomfortably on a small, hard, three-legged stool, and proceeded to light a short clay pipe. He did not really like tobacco, and seldom smoked more than a whiff or two; but as he had artificially blackened the pipe on the outside, it made a good pretence of being in constant use.

Cristopher senior spoke immediately and with some excitement. "What do you suppose we have discovered? Herbert has been scouting, to find out who these new neighbors of ours are."

"Well?" rejoined Mrs. Felch, with an inquiring note like a canary's.

"Interlopers!" Mrs. Cristopher exclaimed with scorn. "Who are they?"

Herbert, who had thus far carefully preserved an air of gloomy impecuniosity, now answered them both, glad of an excuse for letting his pipe go out. "I'll tell you! The people in that green house which has just come over the ridge are the Fergusons; and the other people, in the yellow house down the glen there, are the Laidlaws."

"The Laidlaws!" echoed his mother. "Impossible!"

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"It's true!" Herbert insisted. "And, what's more, both those families have come here as spies."

Mrs. Felch now interposed. "But the Laidlaws don't live in movable houses. They're way up in the social scale, you know. They occupy hovels, and travel on foot."

"They do usually," retorted Herbert. "But they're here for a purpose, now, and I have reason to believe they've been supplied with funds by our own Anti-Wealth Society."

Herbert's father came to his support with the portentous murmur, "Things are drawing to a crisis." Whereupon Mrs. Cristopher inquired, in alarm: "A crisis? Why should they want to spy upon us? Have you been compromising yourself, Herbert?"

The young man slapped his betattered thigh with emphasis. "You have hit the word, mother," said he, as if it had been situated on that part of his person which he had just thumped. "But you haven't hit the sense in which it should be taken. I haven't compromised myself by disloyalty to the party. But I *am* compromising all the time, by not acting up to my principles. I live in luxury; I consent to remain rich. These very rags that I wear, and we are all so proud of, are shams."

The ladies looked shocked. "It's too bad for you to say so," Mrs. Cristopher declared. "I made those rags for you myself—with Maria's help."

"That's just it," Herbert retorted quickly. "They're not real rags; only make-believe. And look here!"—gathering in his fingers sundry fluttering bits of his costume—"just see these fancy touches of braid and embroidery on them!"

"They are my work," said his aunt, proudly. "And very pretty, too."

"It's a sign of weakness," he went on; "just the sort of thing that makes the Anti-Wealth people suspect me."

"But," objected his mother, "you say the Fergusons are acting as spies, too. How can both parties suspect us?"

"Reduced to its lowest terms," said the son, "it's just this way. The Laidlaws think we're traitors to Anti-Wealth, and the Fergusons think we're ditto to Wealth. Understand?"

"Perfectly. And I see how we can baffle them both."

Mrs. Felch with her eyebrows and Mr. Cristopher with his lips inquired, simultaneously: "How?"

"By moving away from here," answered Mrs. Cristopher.

"No," said Herbert, positively. "That won't do. I've had enough of dodging, and I'm going to stick right here and fight the thing out."

The truth is, Herbert had private motives, which he did not care to reveal. He was in love with Lelia Ferguson, the millionaire's daughter; yet he knew that Marian Laidlaw, the child of the distinguished and poverty-stricken Laidlaws, was decidedly in love with him. Now, although Mrs. Cristopher was quite ignorant of this secret, she perceived that Herbert was somehow master of the situation; and she yielded, saying: "Very well. If we are to stay here I may as well send these cards right over to our neighbors by Bridget."

A pleasing young lady, in a well-fitting black gown, answered to the summons for Bridget O'Hara, that being merely her assumed "work-name." For the scarcity of domestic servants, caused by the plenteousness of money, had latterly been counteracted by a rush of young women from the more refined, educated classes, who sought menial positions on account of the old and hallowed associations of house-work with narrow means.

"See them yourself, Bridget," said Mrs. Cristopher, giving her instructions. "Chat with the ladies a little, and find out, if you can, just how they happened to bring their houses up here."

In half an hour "Bridget" returned with the news that she had made pleasant calls on the ladies of the two households and had been cordially received. Apparently they had known nothing about the Cristophers' being in the mountains, but were charmed to learn that they were here, and had accepted most of the proffered cards. In return they had entrusted "Bridget" with packets of their own cards; and Mrs. Cristopher diplomatically kept all of these, so as to put herself on good terms with both households.

The social conventions having thus

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

been complied with, Herbert presented himself at the door of the yellow house the next morning. Miss Laidlaw welcomed him cordially; but her fashionable and expensive dress only confirmed his suspicion that she was under pay as an Anti-Wealth spy. She was undoubtedly beautiful, with a beauty of an open, glowing kind, exhaling its geniality in the same way that a wood-fire on the hearth throws out soft warmth and golden light. She glowed because she could not help it. But Herbert sometimes felt that it would be agreeable to moderate Marian's natural ardor by interposing a screen, just as one does when the warmth of a bright fire becomes oppressive.

"It's a delightful surprise to find you here," he said to her. "But I am also surprised at your coming in such style. This house; that dress! My dear Marian, why prevaricate? Have you and your father gone back on your principles?"

Marian laughed radiantly. "What else was there left for us to do?" she inquired. "Papa is in the van of progress—one of the foremost and poorest men in the United States. Since we could hardly go farther forward on our principles, why not go back on them?"

Herbert suspected an insincerity. "I don't think you're quite in earnest."

And Marian answered: "I'm glad you said that, for I can return the compliment. I don't think *you* are in earnest, either."

"What!" he exclaimed, indignantly. "Don't I wear the party uniform and preach its doctrines incessantly?"

"Yes. But, all the while, you're only a man of leisure."

"Very well. The absolutely poor man is the man of absolute leisure—the man who won't work."

"That isn't fair," Marian objected. "My father is genuinely poor; but he is a shoemaker, and makes shoes every day. See! these are his." And she glanced down at her well-wrought walking-boots, which projected from beneath a heavy silk skirt.

Herbert was ready to parry this thrust of the boots. "Am I not a tailor?" said he. "Resolving to devote myself to one of the truly humane and liberal professions, I learned tailoring. The only drawback is, no one will wear the clothes I make. I've got a whole warehouse in New York, now, full of misfits that I manufactured."

"Oh, I didn't know that," Marian replied, softening. "Perhaps I've done you injustice."

"Let us be frank," Herbert proposed. "I don't understand how your father has obtained the means to make the journey here, and support such a house."

Marian was all smiles. "The means? Why, he borrowed the money—and hasn't the least intention of repaying it. Does that satisfy you?"

"Perfectly," said Herbert. He was so astonished that he rose to take leave; but he did not go until he had induced her to promise an exchange of cards with the Fergusons, so that the three households might be on terms of a visiting acquaintance.

II.

Herbert had hoped that, if the Laidlaws were detected in accepting money from the Anti-Wealth Society for spying purposes, he might accuse Marian of deception, and so break away from her with freedom to marry Lelia Ferguson. But now, when it turned out that Ebenezer Laidlaw had merely borrowed the money, the old man rose to a still sublimer height. How, then, could Herbert neglect the opportunity of marrying his daughter? "The trouble is," he sighed to himself, "both girls are beautiful. Oh, if one of them were only ugly!"

If Marian was like the generous wood-fire on an open hearth, Lelia resembled the soothing shadows that give grateful relief from the blaze. Her hair was dark; in her cheeks there was a natural tinge of carmine; and she affected Herbert's mind with an atmosphere of far-off, spicy fragrance. All this impressed the young man very strongly when he went to see her, soon afterward. They talked of their journeys in the long interval since they had met, and of the great automaton ball which it was proposed to give at the Vacuum Hotel, on top of the mountains. Both intended to send their automata there, and hoped that these might meet on the occasion.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Of course, if Lelia accepted Herbert and he wedded her, that would end his career of ambition to become poverty-stricken, and would shatter his political consistency. But suppose she rejected him: where would be the harm, then? He was inclined to be quite sure, at this moment, that she *would* reject him. So, why not at least try the experiment? His mind would be easier after she had refused him. But the favorable moment passed by; and just as he was leaving the green house, Mrs. Ferguson appeared, and followed him to the porch. Engaging him in a seemingly idle conversation, while her daughter was beyond earshot, Mrs. Ferguson managed to show him very plainly that Marian Laidlaw had known the Fergusons were coming to the Catskills, and had herself engineered the whole plan of following them to the spot.

"Isn't it curious?" she inquired, innocently. "Here are copies of her ethergraph despatches, which Mr. Ferguson—who is a government director, you know—got from the office. And here is something still stranger!" She produced a document, which read:—

I. O. U.,
Samuel Ferguson, seventeen thousand six hundred and thirty dollars for rent of house, furniture, costumes, and transportation.
EBENEZER LAIDLAW, SHOEMAKER.

"Very curious!" Herbert confessed. "What does it mean?"

"That he borrowed the money for this excursion from my husband. His daughter persuaded him to do it."

Herbert went away with a new light on the situation. He perceived that Marian had come to his vicinity through motives not of political suspicion, but of personal jealousy. It was also clear that Mrs. Ferguson had made this disclosure because she wanted him to marry her daughter, Lelia. But he was troubled by the circumstance that the I. O. U. signed by Laidlaw might be used with damaging effect against a movement, already under way, for overthrowing the party in power and placing Laidlaw at the head of the government. Of this movement Herbert himself was one of the ringleaders. He must save Laidlaw, must mollify Marian's feelings, yet secure Lelia for his wife. How was it all to be done? To marry the millionaire's daughter would be inconsistent with his own professions of loyalty to poverty.

At length he hit upon a plan. He would persuade Ferguson to abandon, or pretend to abandon, his wealth. It was a common thing for people, in the Tenth Populiad, to burn their houses, when they grew tired of them, or as a signal that they had joined the Anti-Wealth crusade. It would therefore be a politic thing for Ferguson, in the impending crisis, to give his house to the flames; and the incriminating I. O. U. must be burned with the house. The conspiracy could go forward, with Laidlaw at its head, and Herbert would marry Lelia, under the plea that her father was now poor; leaving Marian to solace herself with the dignity of being the daughter of a President. The best time for carrying out this design would be the night of the automaton ball at the Vacuum House; for it was then also that the Anti-Wealth revolt, as Herbert knew, was to culminate.

Everything had to be kept secret, however, even from his father, who was not admitted to the full confidence of the revolutionists. Outwardly, matters moved on in a placid, genial way for some days longer. The members of the three households, their formal exchange of cards having been settled, mingled freely in a number of pleasant picnics, balloon ascensions, and other little entertainments; and Cristopher senior devoted himself innocently to the futile effort of reconciling Laidlaw and Ferguson in their political views. At one moment, he began to think he should succeed. This was when the group had gathered in Ferguson's platinum-lined library, one afternoon, and were chatting about public affairs.

"The pension system is being carried altogether too far," Ferguson announced. "I didn't object so very much when Congress granted pensions to every one who could prove himself a good citizen; and it was natural enough to go on and pension those whose fathers were good citizens, although it made a bad precedent. But now that it is proposed to award pensions for the good citizenship

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of great-grandfathers and grandmothers, I draw the line. I'm disposed to resist firmly."

"Why?" asked Mrs. Cristopher, sweetly. "Isn't it ungallant to treat great-grandmothers as if they hadn't been worthy?"

"I don't wish to be impolite to the ladies—even dead ones," said Ferguson. "But while the first aim of all this pensioning seemed to be to keep everyone rich, I'm afraid it will gradually result in poverty. The whole nation will become pensioners, and so grow lazy and poor. That's why I'm opposed."

"And *I*," Laidlaw spoke up, stroking the bristles of his unshaven face with a horny hand, "am also opposed to it; but because I think it *will* help to keep everybody rich."

Sanguine Mr. Cristopher fancied he could somehow unite them on the basis of their double opposition. But his hopes were dashed when Laidlaw went on to assert that he intended shortly to introduce a Bill for the Promotion of Mendicancy, and that he favored a return to unrestricted immigration of foreigners, so as to flood the country with paupers. Furthermore, he made an argument against the existing law of capital punishment, which provided that criminals should be "whiskeyed" to death.

"But you know," protested Mrs. Ferguson, "how splendidly it has worked in bringing about prohibition."

"It did work splendidly at first," the revolutionist admitted. "When the people were deprived of whiskey, and it was set apart for the sole use of criminals, there was a tremendous increase of crime and we were able to get rid of most of our bad characters. But the reaction long ago set in. People don't want whiskey any more, and so they won't commit crimes. The result is, society is loaded down with bad characters, who under the old customs would have drunk themselves to death at their own expense."

The illustrious shoemaker ended by defending the recent resumption of the custom of electing a President. For, in the Tenth Populiad, the long prevalent system of running the government by a Congress without any head—*i.e.*, without any executive head—had been given up. It was found that dispensing with a President caused a fatal decline in American humor, impertinent gossip, and abusiveness.

Laidlaw was willing to sacrifice his own feelings, for the sake of preserving these fine old national qualities; but his opinions were so unpleasant to the Fergusons that Mrs. Cristopher thought it best to break up the present sitting of the friends. Herbert was undisturbed by this; because he succeeded, before he left the house, in making an appointment with Lelia to meet her the next day, alone, in a woody nook of the ridge. "I have something of the greatest importance to say," he explained; "in fact, several things." But his tone conveyed to her that there was one thing in particular on his mind, and that it related to her. He fancied that there beamed from her eyes a soft, auspicious light, which beckoned to him like the rising evening star.

Meanwhile, during all these days, Herbert had been in close conference with Laidlaw, at every available opportunity, upon the subject of the coming cataclysm. He was obliged to visit the yellow villa, on this particular evening, in order to perfect sundry points; and, after finishing his talk with the shoemaker, he found it unavoidable to sit down with Marian for a few minutes, in the drawing-room. That young lady sparkled with joyous anticipation. She was fully charged with the effervescence of the revolution, and moreover she seemed to be brimming with an expectation amounting almost to certainty that the triumph of the Anti-Wealth conspiracy would be accompanied by her union with Herbert. Notwithstanding that as yet he had said nothing at all about marrying her, Laidlaw seemed to take it for granted that the young man was to become his daughter's husband, simply as a matter of detail; and now Marian said to him, as he was taking his departure:

"I must tell you that papa is immensely pleased with you, of late. He reminded me to say to you, lest he should forget it, that our house—which, considering that it's a borrowed one, is all the more valuable—is yours." With

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a smile of generous radiance she added: "And everything we have is yours!"

This seemed equivalent to a declaration, and Herbert trembled with the thought that perhaps, out of politeness, he ought to accept her on the spot. But he murmured: "It is more than I deserve, Marian. I cannot take it all—at least, not at once. Let us wait. We have work to do!"

As he did not mention that the work he had in mind was to engage himself to Lelia and, if possible, marry her immediately, Marian let him off. But Herbert doubted whether she was quite satisfied. Her jealousy might still, he feared, make trouble for him, if a chance were given; but he relied on the ingenuity of his scheme to frustrate her. There could scarcely be a greater solitude than that afforded by the automaton ball; no one would think of looking for real people there; and his design was to go thither with Lelia and be married there before the revolt should begin. He had already taken the precaution of engaging a clergyman for the purpose.

The next morning two upright pianos, handsomely finished and precisely alike in make, were carted up to the Cristopher and Laidlaw villa-cars and installed in the drawing-rooms of those edifices. This circumstance was not in itself strange; nor was there anything to excite remark in the fact that, soon afterward, men were seen stringing electric wires from the two houses and carrying the other ends off into dim distance. What gave significance to the matter was the connection of the wires with the pianos inside. This was commented on by a mechanic, a little man in an apron, with a meagre physiognomy suggesting a death's head, who stood in the parlor, talking to Herbert. This mechanic was known to the conspirators as The Tuner, and he was the inventor of the piano, as well as of the remarkable system of which it formed a part.

The instrument could be played either by electricity or by hand; and, in either case, the electrical contrivance inside it was connected with a network spreading all over the country, so arranged as to fire off batteries of artillery and whole brigades or army corps of small-arms, which could be manœuvred as desired by the local commanders. The object was to secure swiftness and unity of action. Quantities of these pianos had been manufactured and been put in position at important points throughout the Union; and the approaching night was the time fixed for the "concert," as The Tuner humorously called the revolt.

"Our victory will be complete," said he, with a chuckle. "How much more effectual ballots of lead are than paper!" But he distressed Herbert by informing him that Laidlaw had decided to have one of the pianos placed in the Vacuum House ball-room; so that the music for the mute dancers who represented the frivolous rich would actually be firing the guns that destroyed their troops.

Yet, distasteful though this arrangement was, he persisted in carrying out his own plot. Lelia met him on the ridge at four o'clock. It was a lovely scene that surrounded them. Down in the great valley, between the melting tints of the mountains, flowed the broad river, alive with brilliant steamers and private palace-boats; the open slopes and levels were dotted with moving villa-cars of various colors, that shifted their position as if by the turning of a slow kaleidoscope; and here and there against the distant sky hung pleasure-balloons that looked like decorative fans spread out on a wall of blue. A lovely scene, and a lovely girl! But I shall not describe the episode of Herbert's proposal, for the essential parts of it will be found in the Pneumatic Library at Washington, which any reader may consult by tube. See Department of Romance (1,000,000 vols.); sub-head, Offer of Marriage (referred to under 971,422 of the million titles). To Herbert's joy, Lelia accepted him, saying, frankly: "I have known for a long time that you wanted to marry me. But I saw the obstacles in your social and political ambition, and preferred to let you speak first."

It was not so easy to persuade her to have the ceremony performed that very evening, and in the manner he suggested. But at last she consented. The next thing was to see Ferguson. Herbert began upon the millionaire by asking him, off-hand: "Did you ever try burning up your house, Mr. Ferguson?"

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"No," was the answer. "I don't approve of the practice. It's wasteful, and at the best a needless piece of ostentation."

Herbert assured him that he would find it a very pleasant diversion. Then, gradually, he imparted more serious considerations; and when he told of his engagement to Lelia, the millionaire, despite his prejudices, was so flattered by the idea of having a son-in-law poorer than himself and higher in the social scale, that he agreed to everything, including the burning of the I. O. U. It was settled that the green villa should be fired at 10.30 P.M., and that the Fergusons should take shelter in one wing of the Cristopher car for the night.

Everything had run so smoothly, thus far, that Herbert awaited with serene and exalted calm the proper time for resorting to the Vacuum. He had been obliged to lock up the piano and intrust the key to his father, with an injunction that, precisely at 10.30, Mrs. Felch, who had been very anxious to try the instrument, should begin to play. The scheme of the clandestine wedding ceremony, however, was revealed only to Mr. Ferguson; and, to avoid attracting Marian Laidlaw's attention, Herbert and Lelia went separately and stealthily to the Vacuum House, where they arrived, and met the clergyman, about twenty minutes past ten.

Lingering briefly on the veranda, the lovers looked out into the great beauty of the starlit night, through which soft cones and spires of varicolored light ascended from innumerable electric towers, like etherealized torches of Hymen. A question arose as to whether the pair should be pronounced man and wife here, in the outer air, or go within for the ceremony. Glancing in at the windows of the ball-room, they watched for a moment the crowd of automatic figures moving about in noiseless gayety, with rich costumes and glittering jewellery; and as their own automata were there, too, Herbert and Lelia thought they might as well join the throng. But they had barely crossed the threshold, when the groomsman was startled by discovering, near by, a life-like automaton of Marian Laidlaw! This was, at least, an unpleasant omen; and it soon proved to be more than that. For the automatic figure, in this case, was merely a disguise. As soon as Herbert and his betrothed had taken their positions, and commanded the clergyman to proceed, Marian herself—who had been secreted inside the false automaton—stepped forth, exclaiming, "Stop!"

"You here!" cried Herbert. "How does that happen?"

"Oh, I found out your plan," Marian explained, with indignant yet laughing triumph. "Mr. Ferguson was so delighted with the match, that he couldn't help telling his wife all about it. The servants overheard, and they reported to me; for they are in my pay."

"And so you invited yourself as a guest?" Herbert inquired, sarcastically. "A very delicate attention!"

"No; not as a guest," said Marian. "I am to be one of the principals. You will marry me, instead of Miss Ferguson; and she is to play on that piano in honor of our wedding."

"Impossible!" retorted Herbert, vehemently.

"You think so, perhaps," she answered. "But listen to me. The clock is pointing almost to the half-hour, and the signal must soon be given. My father expects it from here, and the tune which is to start the revolution is known only to me. Refuse what I have just demanded, and the signal will not be given. The wires will be cut, also; and the conspiracy will fail—with the blame all on your head."

The Tuner at this instant presented himself beside the piano, fixing on Herbert a gaze that warned him of the vengeance likely to overtake him should he frustrate the revolution by resisting Marian. Apparently the young man was over-matched.

"What does it all mean?" Lelia asked him, anxiously.

"It means that I am in her power," Herbert confessed. "I can't explain it now, dearest; but I must beg you to go to the piano, and play whatever Miss Laidlaw tells you to."

There was an instant of hesitation, and then poor Lelia started almost mechanically to obey him. "I think it will come out right," he contrived to whisper to her; and although she could not see how

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it would be right if he married Marian, she seated herself at the piano. Marian leaned over her with a malicious smile, and gave her the word; and, after one glance of protest, the victim sounded the first notes of the primitive wedding-march known as Mendelssohn's, leading quickly to that crashing cord which begins the melody. To Herbert it sounded like the crash of a thousand cannon, which he knew were being discharged by it. Down in the glen the same harmony was transmitted to Laidlaw's instrument, which had been adjusted to play sympathetically with this one; and Mrs. Felch's fantasia at the Cristopher dwelling added another strain to the uproar on distant battle-fields.

But, as Marian turned and came back to Herbert, at the same time summoning the minister to unite them, Herbert said, stoutly: "I decline! The revolution is started; and I refuse to be married under compulsion."

The tables were turned. He called to Lelia to cease playing. The stopping of that one instrument did not matter, since by this time Anti-Wealth pianos all over the country were in operation, producing an indescribable din of victorious discord. Herbert briefly explained the situation to Lelia; but she, horrified to learn that her touch on the keys had "opened the ball" of revolt, declared that she would not marry him, and was going straight home. Nor would she be deterred by the news that her home was in flames. Herbert therefore prepared to escort her, gloomily, to the glen; at the same time offering the desolate and unprofited clergyman a night's lodging.

The Tuner sat down at the piano and played an enchanting waltz, to which the bedizened automata—including the counterfeit presentments of Marian, Herbert, and Lelia—whirled blithely around the room. But Marian herself sought her father's house, weeping bitterly. When she arrived there, however, and told her disappointment, the distant detonations of battle which rose from the valley were translated into favorable election returns that came to Laidlaw over the ethergraph. The votes of all those whom his forces killed were counted for him, and he was jubilant at his success. "I'm glad you've got rid of that half-way poor man, Herbert Cristopher," he said to his daughter; "for I've already decided that it will be much better to import a penniless foreign nobleman for your husband."

Marian dried her tears. At the Cristophers', affairs also took a more cheerful turn. Ferguson, hearing of the successful progress of the revolution, insisted that Lelia should marry Herbert at once. "His connection with the successful party will keep us all from being molested," he said; "and the burning of my house will pass for a bonfire to celebrate Laidlaw's victory. Now that the Anti-Wealth people are in power, the rich will gradually grow rarer, and so we shall rise in society and become an aristocracy."

Herbert and Lelia were accordingly wedded, by the light of the conflagration of Ferguson's house; and the unemployed clergyman was made happy. Laidlaw, next day, was declared elected, and was soon installed in what thenceforward became known as the Shoemaker's Bench, at the Executive Mansion, or Rainbow House, in Washington. The peaceful supremacy of Dust was reëstablished; poverty once more became, by degrees, a very general condition; and the Republic was restored to a phase resembling that of the beautiful Gilded Age.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A MONSTER OF MY ACQUAINTANCE.

By E. C. Martin.

I.

UNTIL I was a lad of eleven or twelve years I dwelt in the town of Meadstead. It lay at the edge of a narrow intervale or plain, above a wayward river, the Quapaw, that every spring strove hard to undermine it. Only diligent fortifying with stone walls, log barricades, and young willows, by the owners of six or eight smoky factories that hung upon the high bank, thwarted the Quapaw in its fell purpose; and the rudeness of these fortifications combined, with the partial inroads that were made despite them, and with the griminess of the impending factories, to give the river-bank a ragged and most unlovely aspect. On the farther side the Quapaw had no bank. A flat waste of gravel, sand, and sandy loam stretched in low-water from the river-bed to a line of low hills, nearly a mile away, and in high-water became river-bed itself. In the rare springs when no floods interfered, patches of very yellow, stunted corn appeared on the waste here and there; but they did not relieve—rather intensified—its desolation.

The town itself was of little more cheerful countenance. Its dimensions admitted of such neighborliness that the whir of the burrs in the grist-mill, and the rumble of the rag engines in the paper-mills, at the riverside, were always to be heard in the centre of town, where the twelve or fifteen shops were. Of these shops a remarkably large proportion were devoted to the sale of men's ready-made clothing. Before each was a long, stout hitching-rail, and much of the time, when the shopkeeper was not listlessly exhibiting his wares to possible patrons, he was sitting on this rail, pursuing a course of diligent experiments with a view to ascertaining how violently he could kick his heels in the air without unhorsing himself. About each shop, besides the proprietor and his clerk (if he had a clerk), were usually two or three other persons—a sort of gratuitous retainers—whose sole service seemed to be attendance. They let no day pass without appearing at some period of it, for at least an hour or two, in or before the respective establishments to which their wont had attached them; and a few of them spent most of the day there, appearing for the hour or two only elsewhere.

At a corner of the two streets in which trade was thus deliberately conducted stood an old brick structure of two stories, in a very seedy coat of red paint. You mounted five or six deeply worn stone steps to reach the first floor, and there, at my earliest recollection of Meadstead, survived one of those "general" stores where groceries, dry-goods, and hardware are all sold over one counter—usually a sombre counter, cased in tightly and plainly to the very floor—and the purchaser's parcels are done up in heavy, coarse paper of the color of baked loam. In time this structure cast off its seedy red coat for a new one of dull drab, and the proprietors of the "general" store changed it into a bank. They continued to make some concessions to primitive simplicity, however, by sitting on the bank counters with their hats on and in their shirt-sleeves, and nursing their knees, in the long intervals of business.

Besides being in the main a sluggish town, Meadstead was also in the main a dingy one. The grass was cut in door-yards perhaps twice a summer, with a scythe. In the narrowest of them was always crowded a cedar-tree or two, dead on one side and maintaining but a dull, dusty, sad vitality on the other. The houses suffered for paint. Weeds flourished in the shallow gutters, and after a rain the water flowed down the pavements. The desirable building-sites were out of all proportion to the buildings. And the universal custom of grow-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing one's own vegetables protruded into the landscape through nine or ten months of the year the melancholy features of dug-up potato-hills and withered pea-vines and corn-stalks.

Despite its springlike name, then, Meadstead was nearly an unbroken parched summer from centre to circumference. And yet it was as rich in romance as any fine old castle, if only you brought a boy's vivifying fancy to bear upon it. Of a Saturday, when the irksome schools were closed, one could wander away off to the head of Broad Street, where the Hydraulic wound along on its way to the mills between green banks shaded here and there by a young willow—moving silently and, like a good horse, making better time than it seemed to be making. Such a journey, however, was not to be undertaken on a day of briefer leisure than a Saturday, though the realistic measurements of later days disclose that the distance was within the range of an improved rifle. On rare occasions, when the guardianship of a very big boy or a full-grown man could be secured, it was permitted to go a mile farther out, even to the Head Gates of the Hydraulic. So comprehensive a field of marvels was here unfolded that it would not have been in the least surprising, howsoever startling, had some ravening behemoth come up from the water on the one hand and a tribe of ferocious red men broken forth from the corn-fields on the other. If the guardian man or very big boy chanced to fetch a gun and a hunting dog with him, still greater delights attended the excursion.

No sooner had the Hydraulic got well into town than it widened out into a little lake, known as the Reservoir. Here in winter was such skating as transmuted, in a boy's mind, all rules of grammar, all spellings of hard words, all sums in arithmetic, into inside and outside rolls, tan-bark grindings, and eagle-spreadings. And here, too, of Sundays, in an opening cut through the ice, were frequent baptizings, when the religious revivals, which Meadstead let no winter go by without experiencing, had accomplished their full and perfect work. These were often impressive, often amusing; but in either event a spectacle on no account to be foregone.

Then there was the canal that ran straight through the town—an unfailing scene of wild adventure, in actuality or in fancy. When it furnished no other entertainment, you could loll against the broad wooden braces of the bridges and watch the white boats with green rails and green window-shutters pass under, and, inspired by the sight, dream of the time when heaven should kindly make *you* a man and a canal-boatman. This time come, you would certainly be attached to a boat whose paint was always fresh and whose mule-teams numbered never fewer mules than three, and these clean-limbed mules with neatly shaven manes and tails, and with backs and shoulders free from the livid galls that marked the ordinary canal-boat mule: mules clad in harness gay with ribbons at the headstalls and glistering with brass tips, rivets, and buckles, and ivory rings. A swift boat this must be, withal: capable, possibly, of six or seven miles an hour—a marvel of a boat, in fact, whose entrance into a town, particularly into Meadstead, would be a great event and draw to the canal-side all the beautiful maidens of the town, in clean summer gowns of white and pink lawn. One in particular would be attracted—in pink lawn, she: a maid with very black eyes and very black hair and very round red cheeks. As you came along the tow-path astride the hindmost of the three fine mules, driven tandem, and moving at a pace such as in all the annals of canal-boating had never been known before, this particular maid would watch your approach with eager, tender—or, no, on the whole you believe you will not come in astride the mule; you will come with the handle of the rudder held carelessly between your legs, and in a beautiful red flannel shirt, a jauntily knotted neckerchief, and blue nankeen trousers held in place by a leathern belt. For all your apparent indifference in the management of the rudder you keep a keen look-out ahead, and thus and by the exercise, at short notice, of marvellous calmness and strength you are to be enabled, just as you come opposite the group of beautiful maidens in clean summer gowns, to thwart, with cheek-blanching, breath-catching narrowness, the revengeful design of some rascally

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

steersman on another boat to run into you. Somehow—you cannot just now quite arrange how, but you will straighten out all the details another day—the particular maiden in pink lawn is to be brought into great peril by the narrowly avoided collision, and it is only great heroism on your part—exercised on lines that must also be left over for full development to some future dream—that saves her therefrom. Thus, finally, there before the whole admiring throng, what you had at first, perhaps, intended should be a meeting of freezing coldness on your side and of unavailing gentleness on the maiden's (thus conducive to painful instruction of which the maiden somehow—also not yet fully dreamed out—had previously disclosed a need), becomes a completely reconciliatory and very fond one.

If one had a mind to brave all of a mother's caution and do a deed of daring beyond all others, one might journey southward, 'way down to Baskerson's farm, now an area of town lots with many smart houses thereon; or 'way down to the dry-dock, where the hidden mysteries of a boat's keel and bottom were all laid bare, or to the near-lying "lower lock," where they recovered, after many days, the body of the poor, distraught housemaid who, after she had kindled the kitchen fire, went out through a back gate, early one summer morning, before the rest of the household were up, and flung herself into the canal—no one knew why, though there were dark hints of the Papacy being in somewise at the bottom of the tragedy.

I can never think of homely, humdrum Meadstead, with its wealth of fancy-bred delights, without pitying those novelists who so rigidly exclude romance from their pages because it has no proper place in representations of real life. Does sober judgment ever so temper out the dreams, that a man's life even becomes more real than a boy's?

II.

Of all Meadstead objects, however, the one that set boyish fancy running in the widest and wildest currents was a Jewish tinker, who did not belong to the town but paid it periodic visits. His very arrival was delightfully occult. No boy that I ever heard of saw him come. You went up town on the way to or from school, and there at the chief corner, against the curbing, stood a deep-bedded green wagon, set on high springs and tightly covered with leather. It had a dark, cavernous look within, and this helped fancy along too. From the rear of the wagon was erected a booth of slender frame, also painted green, with the street for floor and a leathern cloth for roof. Within this booth, surrounded by benches laden with light tools and fragments of locks and umbrellas, sat a broad-shouldered man with a large head set close to his body. He had little eyes as green as his wagon, and as perfect in evil light as those of any dwarf or giant in the best fairy tale living. But you seldom got a good look at them, because of the thick long eyebrows that overhung them, and because of their owner's habit of rarely lifting them from his work. A dull red beard ran wild and rank over his face, swept down over his breast, and brushed his hands as he worked. There were slender gold rings in his ears, which added much to his effectiveness. I doubt if ever any of us boys had seen another man with rings in his ears save one. A workman in one of the paper-mills wore ear-rings—slender gold ones, just like the tinker's; but he was a strange, mysterious sort of man too—a roughly bearded, short, broad-bodied foreigner, who never had anything to say to anybody, and who was known to us only as we encountered him going to and from his work.

The tinker was a silent man, also. An approved oracle was not more sparing of its words. He was always busy. At whatever hour you stopped at his booth, while the daylight lasted, you found him setting the fractured ribs of an umbrella, pointing up the crushed end of an umbrella-stick and tipping it with a new ferule, or fitting a new key or a new spring to some hapless lock. But I never saw anyone leaving locks or umbrellas for repair, or receiving them when they were done; and I never heard any words of bargain passing between him and a customer. Apparently he held no communication whatever, not

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

so much as a "yea, yea" or a "nay, nay," with the outside world, and his commissions came as mysteriously as himself. Occasionally he did utter a word—seemingly a scolding, morose word—in a deep, mumbled tone, and a tongue that I had never heard before. No gesture, no turn of either face or body indicated for whom this occasional word was intended. It was spoken at whatever subject of repair the tinker had in hand. But many a boy has felt an icy current as of frozen lightning shoot through him, lest it was intended for him and was an all too-familiar word of reproof that he had merely failed to understand in the tinker's mumbling, and lest, if he were detected thenceforth in even so much as breathing, the red-bearded monster of the booth should stride forth and devour him.

Fear of the tinker, indeed, sat ever watchful and inventive in the boyish bosom. It drew an imaginary dead line about the wagon and the booth, and no amount of curiosity or persuasion could force a boy more than just so near. Whether going or coming, and on howsoever urgent a mission bent, no boy thought of passing without stopping. But his fears never let him settle down into an easy, staying posture: he held himself ever in readiness, at the slightest show of danger, to cut and run. What would happen to the boy who should fall into the tinker's hands was a subject of constant and the most fervid speculation. He would be "carried off"—that was certain, frightfully certain. Where, was uncertain, frightfully uncertain. No man with all that red beard, those overhanging eyebrows, those wicked little eyes and that cross, heavy voice, could be anything less than a boy-stealer. If he was not a boy-stealer, why did he live in a wagon like that, and why did he come slipping into town and go slipping out when nobody could see him? He *did* do that. No boy had ever seen his wagon in motion. No boy had ever seen even the horse that drew it. Was it really drawn by a horse? There were shafts to it, to be sure; but it was very strange that nobody should ever see the horse, if there was one.

An approximation to certainty as to where a boy carried off by the tinker would be carried to, was had in the general belief and dread that he would be carried "ever so far"—'way beyond all possibility of getting back home again. Up to this point the speculations were at one, but there was much diversity when it came to settling the carried-off boy's fate after he got there. A few of the finer imaginations were agreed that the tinker was in league with an old gypsy woman, to whom he sold all the likely urchins that he gathered up in his rounds, and that the first barbarity that this old gypsy woman would subject you to would be to stain your face all up so that neither your father nor any of your friends would know you again. Slower fancies held out for a more prosaic but not less terrible fate: they thought the tinker would take you 'way off home and chain you in the barn near a big dog. I myself held—vaguely, dreamily, and without confiding the fact to anyone—to a theory different from either of these.

One radiant early summer day an uncle of mine had taken me in his carriage, with my mother, to the village of Clearfork, lying some five or six miles from Meadstead, down and across the river. They went to attend a meeting there of a simple rural sect, now nearly extinct, to which my uncle was a rigid adherent and my mother a fond one, but a less strenuous. The meetings of this sect usually enforced upon the members a journey of some miles; for its meeting-houses (churches were not in its vocabulary) were few and set either in the heart of the country or on the edge of a village little more populous than country. But as the "supply" at these meeting-houses, through being itinerant, was also infrequent, the members felt amply repaid in the rarity of the meetings for any unusual labor that attendance upon them entailed. Indeed, they frequently doubled and redoubled their exertions in order to multiply their privileges, and, not content with greeting their minister at the appointed times in the meeting-house nearest them, they often followed him to others in the same region. Thus the brethren about Clearfork would drink in there the precious words of some honored expounder of their faith

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

on "second Saturday" (the second in the month), and then next day would refresh themselves from the same approved fountain as it flowed at Elkhorn, a meeting-house ten miles north.

Reared in town, where numerous more sparkish churches secured a constant infusion of new blood by a diligent cultivation of Sunday-school picnics and winter revivals, this simple church of my fathers was to me always sufficiently foreign to make going to its meetings sinfully akin to glorious sport. True, my utmost energies and the constant watchfulness of my mother scarcely sufficed to keep me from falling asleep under the prolonged Bible-smiting eloquence of its preachers; and keenly did I envy the big boys and the young men their curious privilege of leaving the meeting at pleasure and relieving their weariness by a lounge on the green turf or in the vehicles about the meeting-house. But to offset this discomfort there was, in the first place, the journey itself: scarcely any sum of suffering at the end will outweigh a town boy's pleasure in a country drive. Then there was the quaintness of the low brick meeting-house, with its unpainted poplar benches and high sky-blue pulpit (the tint in happy harmony with the altitude), and its high little windows, through which the cool, clean, summer breezes stole, and by their caresses cheered and strengthened one in the hard battle against slumber. It sat usually at the end of a green lane, in a wide green yard, fenced in with weather-stained hitching-rails, and shaded by groups of tall maple-trees. There were also the wonder of the adjoining burying-ground with its moss-blurred gravestones, and the plain, earnest greetings of the people on the green about the door, before and after the service. In all this, even to a boy's roving, inattentive senses, was a becalming, cleansing, refreshing influence, that lives distinctly and gratefully in my memory to this day. And, finally, there was, in the way home, not infrequently, a dinner or a supper at some miraculous farm-house, that needed but to be touched to yield a profusion of fried chicken and cream gravy, baked sweet potatoes, snowy bread, golden butter, and fresh milk.

These excursions were thus always impressive events to me; but the one to Clearfork with my uncle was especially so. To begin with, we went in a great, deep-cushioned carriage, with a deep, high-bred rumble in its wheels, and behind a pair of horses; whereas my drives were usually taken in a light, frivolous buggy, behind a single horse. Then, after we had gone a mile or two, instead of pursuing the wonted road to Clearfork, we turned into a way so little travelled that the turf was unbroken save in two slender yellow lines of carriage-track, that only intensified the adjoining greenness, like dandelions in a close-browsed pasture. This led us down to a ford which I had never crossed, and of which I should have had some fear on that account alone. But it was made fearful also by other circumstances. We came to it through a dark wood (always fruitful of uncanny fancies in a boy), and a thick growth of young willows on either bank of the river shut off all view of it except straight ahead. These surroundings gave the ford an appearance of dangerous depth; and when we drove into it, it proved really to be deeper than any other ford I had traversed. An inch or two more, and the water would surely have run into the carriage. My fright was intense, and for days that horrible ford was ever before me. I conjured up torturing uses to which it could be put. If an old gypsy woman or a ruthless giant had any boys to drown, the ford was just the place for such an orgy. Nothing easier, nothing surer to escape the detection of pursuing fathers, than to drive into the ford in a closely covered wagon on a dark night, and let the boys be jolted out at the tail-gate amid stream.

The ford came into my mind whenever my school-fellows were tremulously discussing what would befall any boy on whom the old tinker got his clutches. I did not quite believe that he would carry a boy down to the ford and toss him off; and it was probably because I did not quite believe this that I never ventured to introduce the ford into the discussions. But my fright at the ford commingled with my fear of the tinker, and begot a new and double-headed horror for me.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The gruff, infrequent mumblings of the tinker, which most moved the fearful fancies of the youth of Meadstead, were probably never addressed to them, however. When by any chance you secured composure sufficient to study the booth and its adjuncts in detail, you discovered in the dark interior of the wagon a young girl of stolid, ashen face, small, unlighted eyes, and dark hair done into two dangling braids banded at the ends with bits of cotton yarn. She was usually employed in some sort of needlework; but not infrequently she was engaged in reading out to the tinker from a leathern-bound book written in a strange tongue, and at such times her presence in the dark wagon was disclosed immediately by the low, monotonous chanting of her voice. It was always the Hebrew Scriptures that she read; or, at least, so some of us were told by our wise fathers. Of course our own knowledge of Hebrew was not sufficient for us to recognize it by the sound. Neither was the knowledge of our fathers, for that matter; and as they could not have had sight of the text, I am now at a loss to know how they could have learned what the girl read any better than we. No doubt of the perfect accuracy of their information, and no surprise that they possessed it, troubled me at the time, however. I expected fathers to know everything then, quite as naturally as I expected to fry in everlasting flames of brimstone after death, if I didn't be good.

It will be easily understood that the presence of this strange girl did not lessen the old tinker's awfulness. She could have been little older than the children who curiously watched her; yet the freshness and joyousness of childhood were as completely faded from her face as from that of some child-bearing, skillet-scouring, clothes-mending menial of a woman. If she ever came out of the dark wagon, it must have been at the rarest intervals: we never saw her out. Such scraps of conversation between her and the tinker as we ever overheard were in a language unknown to us; but we were convinced that he was harsh and hard with her. Might she not be a girl that he had stolen somewhere, and did he not keep her so close lest she should some time run away? These were questions not to be put lightly by. They were never brought to a final and positive answer by the lads who propounded them, but were sagely held open for new and fuller information. Their constant presence in the mind, however, had somewhat to do with that alertness, that unsleeping readiness to take to the heels, which has been already mentioned as characterizing the juvenile visitor to the tinker's booth.

Once I encountered the tinker with his establishment set up in another town than Meadstead, a town of much wider and busier streets. He suffered in my esteem, for the time being, much as the largest church in Meadstead must have suffered by a like transposition. The wagon and the booth seemed smaller than at Meadstead. Though they stood in the busiest quarter of the town, they chanced not to be in the wonted ways of the school-children, and consequently there was never a curious crowd about them. The tinker and his points of dread and mystery were so little known to the boy whom I was visiting that it was all I could do to arouse the awe needful, as it seemed to me, to the boy's self-preservation. When I suggested that we stop and watch the tinker for a moment, he went straight up to the booth and would have begun fingering some of the tools had I not forcibly detained him. There could not but be, for the moment, a certain loss of prestige to the tinker in all this; but when he reappeared in Meadstead the following spring, he immediately recovered all he had lost, and thenceforward through my boyhood, and (shall I confess it?) long years after, he remained the one precious perfect monster of my acquaintance.

III.

Many years after my residence at Meadstead had ended, the necessities of self-provision, which keep us all moving to and fro and up and down in the earth, as they did the devil of old, fixed my abode for me in the little city of Meredith. All the beauties that Meadstead had so conspicuously lacked, Meredith possessed in abundance. Its walks

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

were well paved; its roadways were well graded, well drained, and clean, and noble trees put heads together over them; and the substantial houses sat, for the most part, amid gracious gardens, wherein the grass was always trim and green and the shrubbery was kept within bounds. A river circled about Meredith, too; but instead of eating in under the town and leaving an unsightly prospect of raw edges, it so shaped its course that its every turn but added a grace to the landscape, from whatsoever side one viewed it.

Yet life was little less humdrum in Meredith than in Meadstead. The banker did not sit on the counter in his hat and shirt-sleeves, to be sure. Neither did the merchant spend his leisure doing gymnastic feats on a stout hitching-rail before his shop. But the usual current of life embraced little beyond keeping a shop, or an office, or a factory during the day, and one's bed at night; and wild, sudden overflows were extremely rare. Diversions and pleasurings there were, of one sort and another; but little or no spontaneous, earnest, uncontrollable merriment marked them. Rather the participants wore a patient, tolerant air, as if to say, "These things are to be countenanced, since some people require amusement; but, for ourselves, if we considered only our own pleasure, we should banish them all." In the reflective moods of an indigestion or some physical exhaustion, one looked curiously at his fellow-townsmen, as one met them going to their business of a morning or returning home of an evening, and wondered whether there could possibly be any cheer in their hearts, or whether they must not feel always faint and weary and hopeless, as if living in ever-beclouded, humid summer under a weight of winter underwear. If they had all gone forth some day in a body and drowned themselves, or lapped themselves into an everlasting slumber with a universal snuffing of chloroform, one would have felt, in such moods, that it was nothing to be wondered at, save perhaps for the general departure from routine that it involved.

Romance! Yes, the new novelists were right: romance had no place in real life, and books that professed to present real life must rigidly exclude it. And yet what were these stories that these half-dumb victims of a tread-mill existence told each other in their frigid social meetings, of the carrying up of whole juries in chariots of flaming eloquence by some local lawyer, and of the fabulous growth in riches of some once poor but now wealthy neighbor? Again and again these stories were repeated, and always in good literary order, with the climax properly at the end; and they never wanted attentive listeners.

When I had dwelt some years at Meredith I sat one summer evening with a neighbor under a fine elm-tree that he was the lucky proprietor of. My neighbor was one of those men who drop easily into reminiscence and do not drop easily out. On this occasion his fancy was dwelling fondly on a scattered village in a wide plain of green farms where his entrance upon the world was made, and he was reviewing for my entertainment various village notabilities upon whom the wonder of his boyhood had been showered—a reclusive cobbler who was master of four or five languages, a poor saddler who neglected a marvellous musical talent, and a careless blacksmith who invented something that would have made him a handsome fortune had he but thought to patent it. The chief interest of such confidences as these lies in what they recall to one's own recollection, and long before my neighbor had ended his story I was eagerly awaiting an opportunity to bring in a bit of reminiscence myself.

When at length the opportunity came I told him of the Jewish tinker who had been the terror and fascination of my youth at Meadstead. I described the high green wagon with its canopy and enclosure of black leather; the young girl of swarthy skin and braided hair reading her Hebrew bible, and the silent, gruff tinker with his evil little eyes and his long red beard. "Why," he suddenly broke in, "that man used to live here."

"Live here?" exclaimed I. "Do you mean that he had a fixed home here?"

"Yes," answered he. "You know that old pebble-dashed house at the corner of Factory and Catalpa Streets? He lived there—for a great many years."

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I knew the house well enough. It was a small structure, of two low stories, built sturdily of stone, plastered on the outside with a coarse, pebble-besprinkled mortar and painted white. The window-frames and doors, though, had never known paint and were blackened by time and weather. It was one of the antiquities, one of the ancient landmarks of the town. That is to say, its years were some five and seventy or four-score: the oldest of the Meredith antiquities being somewhat under age. It was a house that always caught your eye as you passed and carried your fancy back to the time when it was young; because it was so manifestly a house that in its best days had enjoyed a high respectability. Perhaps it even clung to your thoughts a little after you had gone your ways, and set you about a restoration of its old-time high walnut cupboards filled with blue china, its oaken floors shining from industrious scourings, its long noisy clock clicking in one corner, and its straight-backed, split-bottomed chairs—the painfulness of one or two of them slightly palliated by a calico bag stuffed with feathers. You might even, if the weather was fair for fancies, re-establish within a family of grave, earnest people, in plain, coarse clothes, meagre of speech but warm and abundant in hospitality.

If the strange, awful vagrant on whom my boyish imagination had so fiercely fed could not escape a doom so unromantic as a fixed abode, there was not another house in Meredith wherein such a doom could have fallen so softly as in this. Nevertheless it was shocking and nearly incredible, even in the matter-of-factness of a somewhat advanced manhood, that any house should have been his home. To make perfectly sure of it, I again asked my neighbor, "You say he lived here and in that house?"

"Yes," he answered, confidently, "he lived there for a good many years. His name was Benoni Schmidtmann. He finally ran away."

"Ran away?" I cried, with some eagerness, experiencing a thrill of hope that, after all, and despite a discordant residence in the customary human abode, Benoni was going to prove true to himself and remain a romantic monster to the end. It was only one thrill, though, for my neighbor immediately answered, with almost a death-like grimness, as it seemed to me, "Yes, he ran away and deserted his wife and daughter. Went off to Kansas somewhere, it was said, and left the woman and the girl to get on as best they could."

This was crushing. Desertion of wife and daughter is of itself such a plain, prosaic, even commonplace piece of deviltry that it was difficult to believe that an honest, self-respecting monster had stooped to it. But here was added flight to, of all places in the world, Kansas! Oh, Benoni! Benoni! Flight even to Canada or to Mexico would have been a little less out of all keeping; and flight to Bagdad, or Syracuse, or Jerusalem, or Granada would have had an artistic fitness that even an attendant wife-desertion could not have beclouded.

IV.

Several months had passed since the talk just recorded, and all thought of Benoni Schmidtmann had passed out of mind, when, as I went to my office one morning, I saw that workmen were busy unroofing the pebble-dashed house. The march of improvement had found it in the way, and it must be torn down. Tearing it down was no easy work, however; for though it was small, it had been built with a firmness and thoroughness accounted quite useless in the construction of houses nowadays. The walls were two feet thick, and could be demolished only by slow, hard crow-barring, stone by stone. For many days, as I passed, I found the work still unfinished. But finally one morning the walls were down to the very foundations and the crowbars had entered upon a resounding struggle with the last of the oaken floors, which at times raised a question whether iron was always stronger than wood.

On this morning the company of those citizens who, in Meredith as in other communities no larger than it, so patiently lend their presence, and even advice, to works of a public nature, without other remuneration than the joy of having their time consumed without exertion on their part, was much larger

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

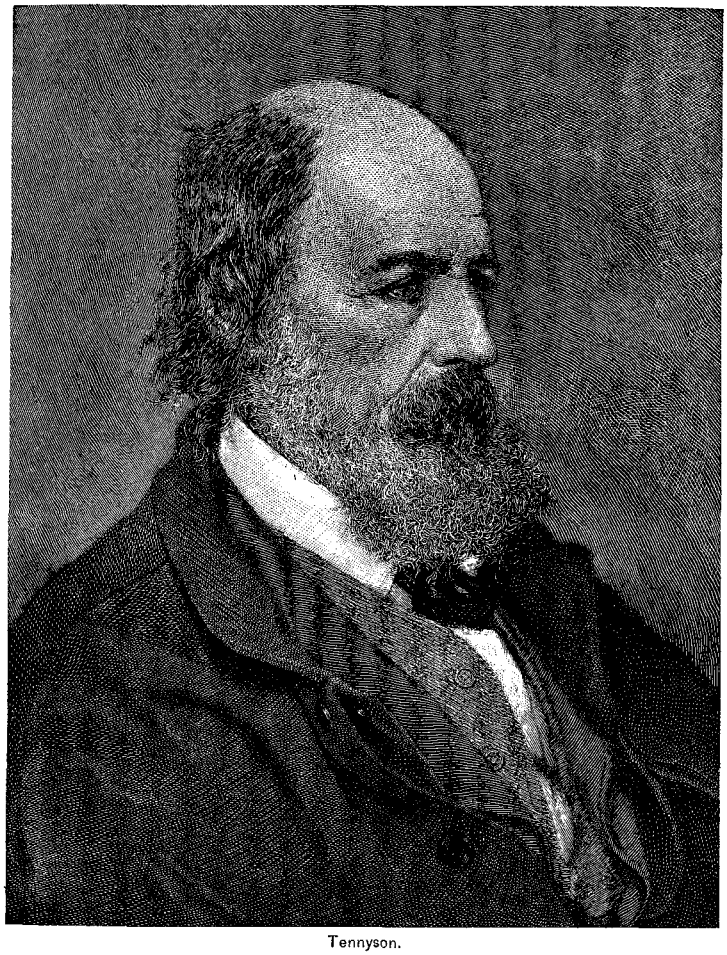
than usual. My first thought, on seeing so many people standing about, was that one of the workmen had been injured, and I stopped to inquire.

"No, no one hurt," answered one of the company; "we're just waiting to see if they find the hidden treasure." The hidden treasure was doubly hidden to me: I had never heard of it before. When by word and look I had indicated as much, my informant proceeded to explain that it was pretty well understood, by everyone whose acquaintance with Meredith ran back many years, that when old 'Noni Schmidtmann, a queer Jew tinker who had once dwelt in the house, ran away so strangely and suddenly, he left behind him, secreted somewhere there, a considerable store of coin and jewels. Attaching to anyone else than Benoni, this tradition would, no doubt, have worn improbability on its very face; but my hero stood so sorely in need of rehabilitation since that Kansas episode, and a hidden-treasure tradition fitted him so admirably, anyhow, that a cool weighing of probabilities was quite out of the question. The merest hint sufficed to set fancy picturing him counting, with a miser's glee, by a flickering candle, heaps of shining coin and gleaming gems patiently hoarded from the small earnings of his vagrant tinkering. Why he should leave these precious possessions behind him when he ran away was, indeed, a riddle not easy of solution. But fancy has a way of vaulting the bars she cannot let down; and I immediately became as confident a waiter for the uncovering of the treasure as any of the men about me. I tarried much beyond the accustomed hour of beginning the day at my office, following every crashing thrust of the crowbars closely. Finally, I durst not tarry longer.

In the afternoon an early edition of the *Night Watch* newspaper was flung upon the desk before me, and my eye immediately fell upon a startling array of richly alliterative and breath-bating headlines. These proved to be introductory to a liberally "leaded" article written in that extravagantly jocular style wherein the utmost possible is made of a small matter, and the reporter finds a needed relief from the oppression and weariness of "knocking about for news" in a town too small and uneventful to afford any. It set forth the tradition regarding Schmidtmann's miserliness and depicted the interest aroused thereby in the destruction of the "old pebble-dashed house" at the corner of Factory and Catalpa Streets. Then it described, with many dramatic touches, how the expectant, breathless crowd stood about, eagerly watching, as the last remnants of the structure were removed. Only one strip more of flooring remained in place and the workmen were on the point of driving their crowbars under that. The spectators had begun to look gloomy and hopeless. Suddenly one of them was attracted by an instinct that he could not explain to a heap of débris lying between two black, cobwebby joists. He took up a stick—just a plain, ordinary stick such as an idle school-boy might pick up to draw clatteringly across a picket-fence—and began to poke in the heap with it, when, lo! there, right there, was Benoni's treasure. A blackened silver coin, which on examination proved to be a Mexican dollar with a small hole bored through it, was turned up. Nothing else was found; this was Benoni's whole store!

The *Night Watch* of the following afternoon made still another revelation. It said that it now transpired that the tinker's treasure, the finding of which had been duly reported in its columns the previous day, was not the tinker's at all. A member of one of the old families had identified the Mexican dollar as a coin that his grand-aunt gave him in his babyhood to cut his teeth on. He was born in the pebble-dashed house, and his mother left him sitting on the floor there one day, with the coin tied about his neck by a blue ribbon, while she attended to some duty in another part of the house. When she returned the coin was gone and could never afterward be found. He had no recollection of the incident himself, but had heard his mother tell of it a thousand times. His theory was that he somehow worked the dollar free from his neck and stuck it himself through a crack in the floor.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

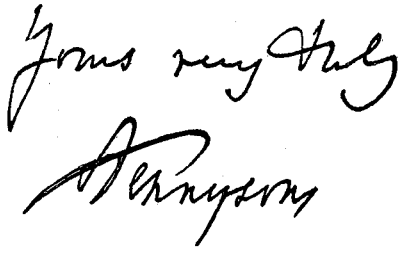


Tennyson.

(From a photograph taken about 1875–77, by Barraud, London.)

TENNYSON'S FIRST FLIGHT.

By Henry van Dyke.



THE advent of a true poet usually bears at least one mark of celestial origin—he "cometh not with observation." A small volume is printed on some obscure press; the friends to whom it is sent, "with the compliments of the author," return thanks for it in words which compromise truth with affection; the local newspaper applauds it in a perfunctory way; some ogre of a critic, whose appetite for young poets is insatiable, may happen to make a hasty and savage meal of it; or some kindly reviewer, who is always looking on the hopeful side of literature, may discover in it the buds of promise; but this is mainly a matter of chance: there are few to buy the book with hard cash, and fewer still to read it, except from curiosity or friendship; the great world rolls on its way as serenely as if nothing of consequence had occurred.

It is after this fashion that most of the leading English poets have arrived.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

There was no great stir made by the publication of "The Shepherd's Calendar," or "Descriptive Sketches," or "Hours of Idleness." The announcement of "Original Poems by Victor and Cazire" did not produce any excitement. Even "Venus and Adonis" failed to inform the public that the creator of "Hamlet" and "Othello" had appeared. The recognition of genius in a first flight rarely takes place at the proper time, but is reserved for those prophets who make their predictions after the event.

But surely there never was a poet of rank who slipped into print more quietly, with less splash and commotion, than the junior author of "Poems by Two Brothers." The book was published in 1827, for J. & J. Jackson, of Louth, and W. Simpkin & B. Marshall, of London. The title-page bore a modest motto from Martial: *Hæc nos novimus esse nihil.* The preface repeated the same sentiment in more diffuse language.

"The following Poems were written from the ages of fifteen to eighteen, not conjointly but individually; which may account for their differences of style and matter. To light upon any novel combination of images, or to open any vein of sparkling thought, untouched before, were no easy task: indeed the remark itself is as old as the truth is clear: and no doubt if submitted to the microscopic eye of periodical criticism, a long list of inaccuracies and imitations would result from the investigation. But so it is: we have passed the Rubicon and we leave the rest to fate; though its edict may create a fruitless regret that we ever emerged from 'the shade' and courted notoriety."

That was surely a most gentle way of passing the Rubicon. The only suggestion of a flourish of trumpets was the capital P in poems. Fate, who sat smiling on the bank, must have been propitiated by a bow so modest and so awkward. Not even the names of the young aspirants for public favor were given; and only the friends of the family could have known that the two brothers who thus stepped out, hand in hand, from "the shade," were Charles and Alfred Tennyson.

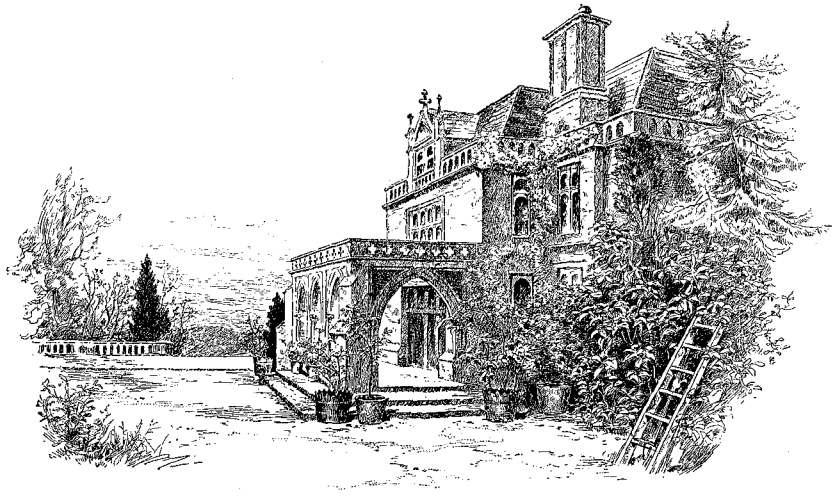
It is difficult to conjecture—unless, indeed, we are prepared to adopt some wild theory of the disinterested benevolence of publishers—what induced the Jacksons to pay ten pounds in good money for the privilege of printing this book. But if they were alive to-day, and had kept a sufficient number of the first edition on their shelves, their virtue would have its reward. For I must confess to having paid as much for a single copy as they gave for the copyright; and as prices go it was an excellent bargain.

Here it is; a rather stout little volume of two hundred and thirty-eight pages, paper not of the finest, print not without errors. It contains one hundred and two pieces of verse, in all sorts of metres, and imitated after an amazing variety of models. There is nothing very bad and nothing very inspiring. *The Literary Chronicle and Weekly Review* came as near to the truth as one can expect of a newspaper when it said: "This volume exhibits a pleasing union of kindred tastes and contains several little pieces of considerable merit." That is the only contemporary criticism which has ever been exhumed. And it would be absurd, at this late day, to turn the "microscopic eye," of which the brothers were so needlessly afraid, upon their immature production. To reprint it, without Tennyson's consent, would be a literary crime; even to discuss it seriously and in detail as a poetical work would be ridiculous.

And yet, to one who can find a pleasure in tracing the river to its narrow source among the hills, this book is precious and well worth reading. For somewhere between these paper covers, hardly to be distinguished from the spring of that twin-rivulet of verse which ran so brief a course in the "Sonnets of Charles Tennyson," lies the fountain-head of that deeper, clearer stream which has flowed forth into "In Memoriam" and "The Idylls of the King," and has refreshed the English-speaking world for more than sixty years with the poetry of Alfred Tennyson. Here, then, we may pause for a moment, and glance at some of the impulses which led him to commence poet, and the influences which directed his earliest efforts.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

It seems to me that the most interesting and significant thing about this little book is the fact that the two brothers appear in it together. For this tells us a great deal in regard to the atmosphere of the home in which Tennyson's boyhood was passed. The seven sons and five daughters of the Rector of Somersby were not ordinary children; nor was their education conducted in that dull, commonplace, Gradgrind spirit which so often crushes all originality out of a child. The doors of the ideal world were opened to them very early; they were encouraged to imagine as well as to think; they peopled their play-grounds with lofty visions of kings and knights, and fought out the world-old battles of right and wrong in their childish games, and wove their thoughts of virtue and courage and truth into long romances with which they entertained each other in turn at the dinner-table. The air of the house was full of poetry. Charles, the second son, was probably the leader in this life of fancy. It was he, at all events, who first directed his brother Alfred, his junior by a year, into the poetic path. One Sunday morning, when Alfred was to be left at home alone, Charles gave him a slate and bade him write some verses about the flowers in the garden. The task was eagerly accepted, and when the family had returned from church the little boy came with his slate all written over with lines of blank verse, to ask for his brother's approval. Charles read them over gravely and carefully, with all the earnestness of a childish critic. Then he gave the slate back again, saying, "Yes, you can write." It was a very kindly welcome to the world of poetry, and I doubt whether Alfred Tennyson ever heard a word of praise that filled him with more true delight than this fraternal recognition.



Tennyson's House, Aldworth, Surrey.
(After a pen drawing by A. V. Poncy.)

Having found each other as kindred spirits, the two boys held closely together. Their companionship was that of twin stars in a larger galaxy. They were intimate friends. They helped and cheered and criticised each other in their common studies and writings. It is a good omen for genius when it is capable of fraternity. It is the best possible safeguard against eccentricity and morbidness and solitary pride. Charles Lamb was right when he wrote to Coleridge: "O my friend, cultivate the filial feelings! and let no man think himself released from the kind charities of relationship." Tennyson's best work has never lost the insight of the heart. And if there were no other reason for valuing these "Poems by Two Brothers," I should still prize them as the monument of a brotherly love to which the poet has paid this exquisite tribute in "In Memoriam:"

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"But thou and I are one in kind,
As moulded like in Nature's mint;
And hill and wood and field did print
The same sweet forms on either mind.

"For us the same cold streamlet curl'd
Thro' all his eddying coves; the same
All winds that roam the twilight came
In whispers of the beauteous world.

"At one dear knee we proffer'd vows;
One lesson from one book we learn'd,
Ere childhood's flaxen ringlet turn'd
To black and brown on kindred brows.

"And so my wealth resembles thine."

Another noticeable feature in this book is the great number of quotations from modern and classical authors. Almost all of the poems have mottoes. I glance over them at random and find scraps from Virgil, Addison, Gray, Clare, Cicero, Horace, Moore, Byron, Milton, Racine, Claudian, Rousseau, Scott, Hume, Ossian, Lucretius, Sallust, and the "Mysteries of Udolpho." Of a truth these school-boys must have read well, if not wisely. Moreover, there are foot-notes, in which they tell us that "PIGHT is a word used by Spenser and Shakspere," and that "none but the priests could interpret the Egyptian hieroglyphics," and that "Ponce de Leon discovered Florida when he was in search of the fabled fountain of youth," and that "Apollonius Rhodius was not born at Alexandria, but at Naucratis." The display of learning is so immense that it becomes amusing; but it is not without significance, for it distinctly marks Tennyson as one of those who, like Milton, were students before they were poets, and whose genius did not develop in solitude but in

"Converse with all forms
Of the many-sided mind."

The volume abounds, as I have already said, in imitations; indeed, there is hardly a piece in it which does not sound like an echo of some other poet. The influence which is most clearly marked is that of Byron. He is quoted six times. There is a strong flavor of his dramatic melancholy in such lines as,

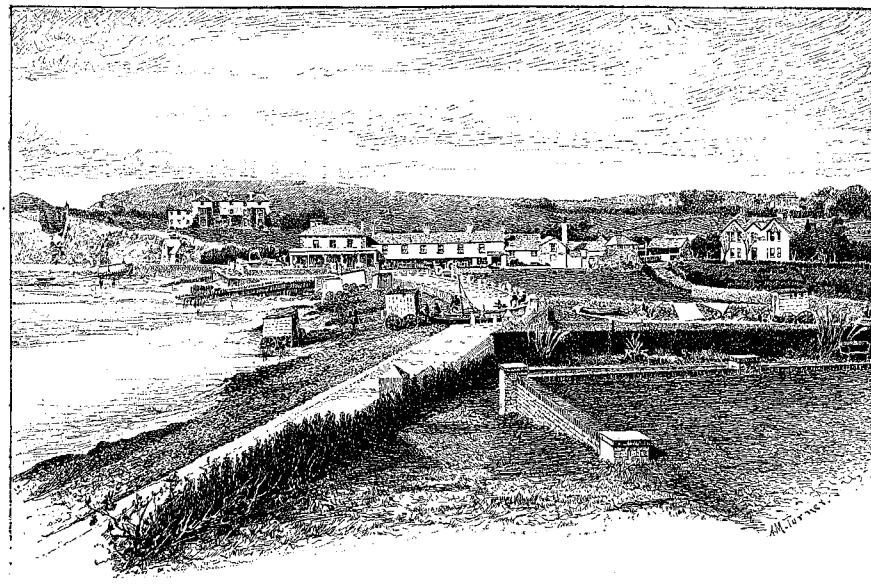
"I wander in darkness and sorrow,
Unfriended and cold and alone;"

or,

"I stand like some lone tower
Of former days remaining,
Within whose place of power
The midnight owl is plaining."

Farringford House, Tennyson's Residence at Freshwater, Isle of Wight.
(From a photograph by F. Frith & Co., Reigate, Surrey.)

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



Freshwater Bay, Isle of Wight, near Farringford House.
(From a photograph by F. Frith & Co.)

It is evident that this grief could not have been very real to a school-boy between fifteen and eighteen. It was like the gloom of Shakespeare's young gentleman of France who was "sad as night only for wantonness." And the fashion of the sadness was learned from the author of "Childe Harold." His metrical manner also is copied with undisguised enthusiasm. The lad who wrote:

"Thou shalt come like a storm when the moonlight is dim,
And the lake's gloomy bosom is full to the brim;
Thou shalt come like the flash in the darkness of night,
When the wolves of the forest shall howl with affright,"

had certainly been captured by the Assyrian who came down like the wolf on the fold. In addition to these tokens of the sincerest flattery, there is a poem on the "Death of Lord Byron," which begins:

"The hero and the bard is gone!
His bright career on earth is done,
Where with a comet's blaze he shone."

After reading all this it is interesting to hear Tennyson tell, in his own words, spoken many years afterward, how the news of that death had affected him. "Byron was dead. I thought the whole world was at an end. I thought every thing was over and finished for everyone—that nothing else mattered. I remember, I walked out alone and carved, 'Byron is dead' into the sandstone."

The spell of this passionate devotion soon passed away, but perhaps we can see some lingering trace of its effects in poems as late as "Locksley Hall" and "Maud." Indeed, I think the influence of Byron upon Tennyson has been generally underrated, if not completely ignored.

There are a few other points of interest in this rare little volume. For instance, the variety of metrical forms indicates an unusual freedom and catholicity of taste. The result of such a miscellaneous admiration of all styles, from the finish of Horace to the formlessness of Ossian, might possibly be nothing better than a facility in general imitation, the fluency of a successful parodist. But if a boy had real genius it would lead him on to try experiments in many metres until he mastered those which were best fitted to express his thoughts, and gave new life to obsolete forms of verse, and finally, perhaps, created some original form. And this, in fact, is what Alfred Tennyson has

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

done. He has attempted almost every kind of measure. And though his early efforts were so far unsuccessful that so good a judge as Coleridge remarked that "he had begun to write poetry without knowing what metre was," yet in the end he made himself one of the most musical of English singers. A promise, or, at least, a hint of this result is contained in the "Poems by Two Brothers," and I cannot help conjecturing, on this ground alone, that the pieces in this volume which show the greatest freedom and rapidity, and even uncertainty of movement, like "The Vale of Bones," "Persia," "The Old Sword," and "Antony to Cleopatra," are the work of Alfred rather than of Charles.

But there are also other indications which help us in guessing at the authorship of particular pieces. Of course we cannot be quite sure of them. But here and there we find a thought, a phrase, which the Laureate has used again in his maturer works, and which may possibly mark some of these earlier efforts as belonging to him. I will give a few illustrations of these parallel passages.

In "Remorse" we find the lines :

> "To life whose every hour to me
> Hath been increase of misery."

"The Two Voices" gives us the same thought :

> "Thou art so full of misery,
> Were it not better not to be ?"

In "Midnight" there is a reference to

> "the glutting wave
> That saps eternally the cold gray steep ;"

which reminds us of

> "Break, break, break,
> On thy cold gray stones, O sea."

In the lines "On the Death of my Grandmother" we read :

> "Her faith, like Stephen's, softened her distress."

The comparison is used again in "The Two Voices :" "Like Stephen, an unquenchèd fire." In "Switzerland" the poet cries :

> "O ! when shall Time
> Avenge the crime ?"

and in "The Vision of Sin" he says again :

> "It was a crime
> Of sense, avenged by sense that wore with time."

In the poem on "Sublimity" the phrase, "Holds communion with the dead," may have been written by the hand that afterward wrote the same phrase in "In Memoriam."

In "Egypt" we find :

> "The first glitter of his rising beams
> Falls on the broad-bas'd pyramids sublime."

The epithet recurs in "A Fragment," printed in an annual in 1830 :

> "The great pyramids,
> Broad-bas'd amid the fleeting sands."

Other passages might be quoted to show the connection between Tennyson's earlier and later work. It is one of his characteristics that he uses the same image more than once, and that the repetition is almost always an improvement. But it will be more profitable to close this essay with a few lines which are worthy to be remembered on their own merits, and which, we may conjecture, on internal evidence, belong to the first genuine poetry of Alfred Tennyson. There is a touch of reality in this :

> "The tolling of thy funeral bell,
> *The nine low notes that spoke thy knell*,
> I know not how I bore so well,
> My Brother !"

True and broad descriptive power is shown in such lines as these :

> "Like some far fire at night
> Along the dun deep streaming."

> "A wan, dull, lengthen'd sheet of swimming light
> Lies the broad lake——"

> "*The thunder of the brazen prows*
> *O'er Actium's ocean rung.*"

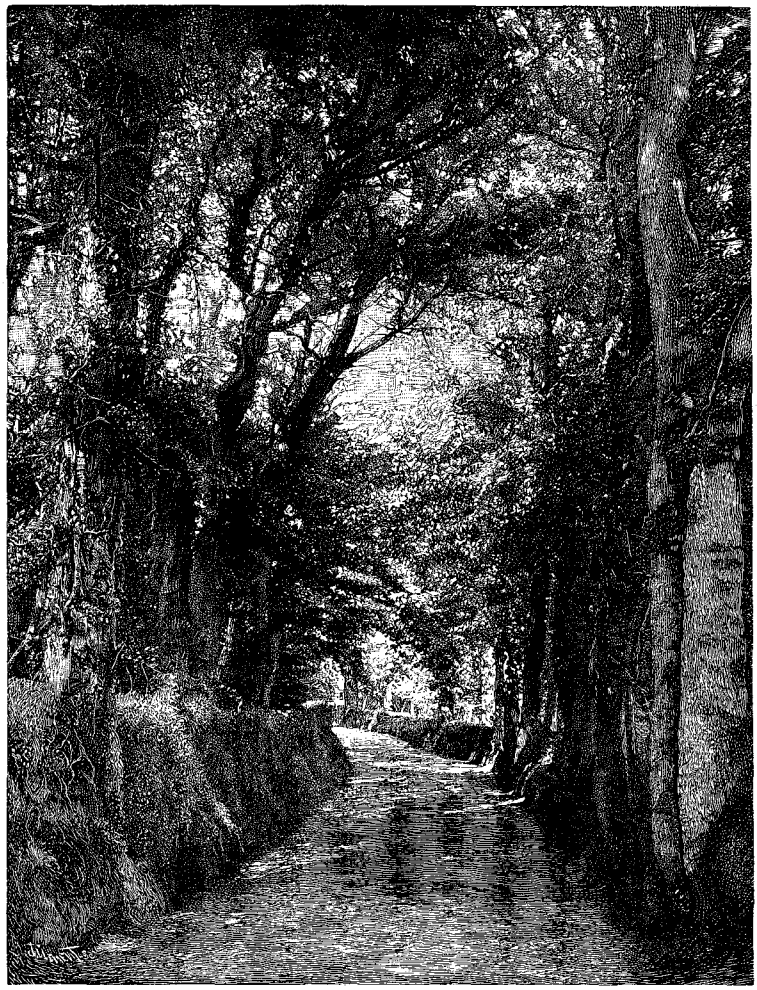
But perhaps the passage which exhibits the most sustained vigor of expression is found in the poem entitled "Persia." It is a description of the great king contemplating the ruin of his empire. He spreads the dust upon his laurelled head, as he is forced

> "To view the setting of that star
> Which beam'd so gorgeously and far
> O'er Anatolia and the fane

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Of Belus, and Caïster's plain,
And Sardis, and the glittering sands
Of bright Pactolus, and the lands
Where Crœsus held his rich domain;
And further east, where broadly roll'd
Old Indus pours his streams of gold;
And southward to Cilicia's shore,
Where Cydnus meets the billows' roar;
And northward far to Trebizonde
Renown'd for kings of chivalry,
Where Hyssus rolling from the strand
Disgorges in the Euxine Sea—
The Euxine, falsely named, which whelms
The mariner in the heaving tide—
To high Sinope's distant realms
Where cynics rail'd at human pride."

This is not perfect poetry; but it is certainly strong verse. It is glorified nomenclature. Milton himself need not have blushed to acknowledge it. The boy who could write like this before he was eighteen years old knew something of the music and the magic of names. If we may read our history, like our Hebrew, backward, we can detect the promise of a great poet in the sweep and swing of these lines, and recognize the wing-trial of genius, in Tennyson's first flight.



Tennyson's Lane, Farringford, Isle of Wight.
(From a photograph by F. Frith & Co.)

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Tears, idle tears, I know not what they mean,
Tears from the depth of some divine despair
Rise in the heart & gather to the eyes
In looking on the happy Autumn fields,
And thinking on the days that are no more.

Fresh as the first beam glittering on a sail
That brings our friends up from the underworld
Sad as the last wh reddens over one
That sinks with all we love below the verge.
So sad so fresh the days that are no more.

Ah sad & strange as in dark summer dawns
The earliest pipe of half awakend birds
To dying ears when unto dying eyes
The casement slowly grows a glimmering square
So sad so strange the days that are no more

Dear as remembered kisses after death
And sweet as those by hopeless fancy feignd
On lips that are for others; deep as love
Deep as first love & wild with all regret
O Death in life, the days that are no more.

Fac-simile of Tennyson's poem "Tears, Idle Tears."
(From the manuscript sent by him to John R. Thompson in 1865; now in the possession of Richard Henry Stoddard, Esq.)

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE TWO LOCKSLEY HALLS.

By T. R. Lounsbury.

TO a large portion of the English-speaking race, perhaps to the larger portion of it, Tennyson is pre-eminently the poet of "Locksley Hall." There are others of his productions which commend themselves with far more effectiveness to minds of a certain order. There are others of them which will be conceded to display more varied if not greater power. But there is no other that has appealed to so wide a circle of sympathies, and, as a result, there is no other that has been so generally read and admired and quoted. Its popularity has never been fitful. The rank which it took at the very outset it has held since with not the slightest abatement. Comparatively few are living now who can remember how sudden was its leap into fame. We have no means of ascertaining when it was written, still less when it was conceived. But it made its first appearance in print in the two-volume edition of 1842, with which the poet broke at last what had practically been a silence of ten years. That edition came out in the latter part of the month of May. In the review of it that was published in the London *Athenæum*, early in the following August, nothing was quoted from "Locksley Hall," for the avowed reason that it was one in particular of two or three pieces that had already become common property.

The poet himself may be thought to share to some extent in the sentiments of the larger number of his readers. It is, at any rate, to this production of his youth that he has gone back in his old age. Forty-four years after its publication, and perhaps fifty years after its conception, he took up the same theme and brought once more upon the stage the same characters. Late in 1886 was published "Locksley Hall Sixty Years After." No such welcome awaited it as that with which the original poem had been greeted. Respectful mention was made of it in some quarters, and there were a few in which it met with enthusiastic praise. On the other hand, a good deal of the criticism expressed of it was depreciatory where it was not openly hostile. This is a condition of things by no means unexampled in the case of several of Tennyson's productions, upon which at their first appearance reviewers have solemnly frowned or have bestowed at best a grudging commendation. Some of them, which are now reckoned among the masterpieces of his genius, made their way with the least possible aid from the favorable verdicts of the majority of professional judges. He who wishes to gain a vivid conception of the value or valuelessness of contemporary criticism, its self-appreciation and its lack of appreciation, can hardly do better than consult certain of the articles which appeared upon several of Tennyson's greatest works at the time of their original publication.

But in the case of the second Locksley Hall—as for the sake of convenience it may be called—there has been something more than lack of appreciation in much of the criticism with which it has been received. The literary judgments pronounced upon it have frequently been modified, and in some instances have been influenced throughout, by reasons that were in no sense literary. The poem was looked at not as a work

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of art but as a contribution to the discussion of the social and political phenomena of the day. On this account it met with favor from some; from a much larger number it met with disfavor. One man would be tempted to depreciate it because its author had been created a lord. Another would go further, and insinuate that the poet had been bribed by a peerage to turn his back upon the more generous convictions of his earlier time. All the mean motives which spawn with profusion in mean minds were advanced to account for the writer's real or supposed change of view. No doubt, indeed, can well be entertained that much of the adverse criticism to which the piece was subjected was due not to the character of the poetry it contained but to the character of the politics it was thought to represent.

It ought not to be necessary to say that criticism which is based, consciously or unconsciously, upon grounds of this sort has hardly reason for its existence, still less excuse for its utterance. The views expressed in the second Locksley Hall may be the views of Tennyson himself, or they may not be. In neither case have they anything to do with the estimate we form of the work. To the literary critic the fact of the revelation or non-revelation in the poem of the author's opinions is a matter of even less concern than the justness or the falsity of the opinions themselves. To him there are but two questions that present themselves for consideration. In the first place, is the poem, as regards its import, true to life—does it fairly represent the character in whose mouth its sentiments are put? Again, as regards the form, does it express with fitness and force the thoughts and feelings which it was intended to convey? Tried by these, the only proper standards, the new Locksley Hall will abide the severest test. Unlike most continuations, while it shows departure, it shows no falling off from the original. There are causes that will always tend to make the one poem less widely popular than the other. But the motives of the two are essentially the same, and both will go down to future times as representative companion pictures of two strongly marked phases of individual and of national life.

The instantaneous and universal popularity which the first "Locksley Hall" gained was due in part to causes independent of its form. It mirrored as did no other work the hopes and aspirations of its time. The period in which it was produced was a period of exaltation which reflected in faint outlines the mood of men in the earlier months of the French Revolution. It is hard for us now to conceive the state of mind that prevailed at the opening of the half-century that has just closed. The optimistic view of the future was everywhere predominant. The race was at last emerging from the social and political thraldom which had cramped its efforts and crushed its spirit. Class distinctions were on the point of overthrow, ancient abuses of all sorts were about to be uprooted. On another side there was a prospect full as glorious. Man was speedily to assert his full mastery over the blind but mighty elemental forces of which he had hitherto been the plaything or the victim. His career of conquest over nature had already opened triumphantly. Steam applied to locomotion was annihilating space. Electricity, though not yet made fully captive, was revealing the possibility of the annihilation of time. An abstract personification called Science, with miracles already performed, and with the promise of greater miracles to be performed, was the new deity to which we were to look for the regeneration of the race. There was no limit to its beneficence, no limit to its power, no limit therefore to what it could and would accomplish. To all the future looked bright, for there was intoxication in the air.

It was at such a time as this that the poet came forward in the original "Locksley Hall" to put into majestic words the majestic but vague ideas which had fired the imaginations of men. To their shadowy conceptions he gave distinctness and grandeur. He pictured for them the full glory of the coming day which had already begun to dawn. The hero of the piece was suited to the part he was called upon to perform. He is in the vigor of early manhood, but

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

his life has already been saddened by a great personal calamity which makes him willing to fling it away. From the benumbing effects of this sorrow he is rescued by the vision that unfolds itself before his eyes, of the progress of humanity through the wonder-working agencies of science and the development of man as man. The individual, it is true, may fail, but the race itself is moving on through struggle and storm to a higher civilization and a loftier destiny. In the gorgeous picture of the future which presents itself before him, the noble, even if delusive, dream of human brotherhood revives. Strife and battle there must be before the result is reached. But these are nothing more than the preliminary tumults with which all great changes are ushered in. They in turn will give place to the reign of universal peace, made permanent and secure by the obedience of all to that universal law which has been established by the parliament of man and is upheld by the federation of the world.

It is little wonder that a great poem, which by its combination of lofty sentiment and lofty diction gave dignity to the acts and lives of common men, should have been greeted with the warmest of welcomes. In its glowing lines the early Victorian era read the reality of the future of which it dreamed. But there is another side to the shield. It is this which the new Locksley Hall sets out to show us. A half-century has gone by, and the hero of the poem once more appears. This time, however, it is not the man with his life before him who speaks, but the man who has lived his life. He stands almost alone. Gone are the enemies he hated, the friends he loved, the comrades of the bivouac and the battle-field. Gone, above all, are the feelings which furnished the inspiration of the original poem. To use his own words:

Gone the fires of youth, the follies, furies, curses, passionate tears,
Gone like fires and floods and earthquakes of the planet's dawning years.

Fires that shook me once, but now to silent ashes fall'n away.
Cold upon the dead volcano sleeps the gleam of dying day.

The vision of his early life, however, is not gone. He recalls it half-satirically to point the contrast between the pretension and promise of the time and the pitiful performance that has followed. Yet there is also a half-mournful tone in these very verses in which he asks, incredulously, if some diviner force will guide men in the days he himself shall not see to the realization of his youthful ideal:

When the schemes and all the systems, Kingdoms and Republics fall,
Something kindlier, higher, holier—all for each and each for all?

All the full-brain, half-brain races, led by Justice, Love, and Truth;
All the millions one at length, with all the visions of my youth?

All diseases quench'd by Science, no man halt, or deaf, or blind;
Stronger ever born of weaker, lustier body, larger mind?

Earth at last a warless world, a single race, a single tongue,
I have seen her far away—for is not Earth as yet so young?—

Every tiger madness muzzled, every serpent passion kill'd,
Every grim ravine a garden, every blazing desert till'd,

Robed in universal harvest up to either pole she smiles,
Universal ocean softly washing all her warless Isles.

This is the picture he saw in his youth. How does it correspond with the picture he now sees? He had dreamed then of universal peace and universal brotherhood. Mighty and bloody wars have marked the interval. These, indeed, he had forecast as an inevitable accompaniment of the period of transition. But as a result, is the world any nearer the goal of universal brotherhood, does the reign of universal peace exhibit any clearer signs of its approach? Is, in truth, such a hope any longer cherished not as a remote probability but even as a remote possibility? The situation that presents itself before his eyes is the all-sufficient comment upon the expectation. The civilized world is eager for peace but seems driven by a dreadful necessity to devote all its energies to preparation for war. The whole European continent is an intrenched camp.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

America is saved by the mere accident of position from the need of raising mighty armaments, and it is to her watery wall alone that his own country owes its freedom from the burden of maintaining a gigantic land-force.

If we turn, on the other hand, to Science we find the same failure of the present to realize the dream of the past. Even on the purely material side the new deity men were called upon to worship has not done everything which was anticipated. The navies of the world do not as yet fight in the mid-air, as the poet saw them in his earlier vision. Still, though Science has not fulfilled all the expectations of its worshippers it has fulfilled them partially, and in some cases has gone beyond their most extravagant hopes. Yet its very success in certain ways makes more pronounced its futility in others. The panaceas which it was to bring with it have turned out incapable of healing a single one of the sorrows that are the sad inheritance of the race. It shifts the load of human care, but it does not lighten it. It has shown itself absolutely helpless to satisfy the cravings of the spirit. Science may add to man's physical well-being, but it adds nothing to his real happiness. It may give him longer life, but it will not teach him to live it any better. It may make him more satisfied with himself, but it contributes little or nothing to his intellectual stature. He is no greater now, whirled fifty miles an hour by the banks of the Thames, than he was two thousand years ago, wandering slowly along the Ilissus. Even the material comforts which it furnishes on a much broader scale do not apparently remove his sullen discontent with his lot, which, if not deeper-seated than ever, is certainly far more vocal. Equally futile has been the remedial legislation which has set out to elevate the race by striking off the fetters that have held its mental and spiritual activities in check. The fierce competition between man and man which unshackled freedom has brought in its train presses upon the weaker or more luckless combatants in the struggle as heavily as did ever the tyranny of the most repressive legislation.

It is by the expression of these sentiments that the second Locksley Hall represents, as accurately as in its turn did the first, the feelings both of the time of life and of the time. As the latter poem painted the confident attitude of the one period, so does the former the critical attitude of the other. The words are put appropriately into the mouth of an old man who, by the very fact of age, is a praiser of the past, and by the fact of experience has learned to see the vanity of the illusions which he had mistaken for realities. But its principal claim to consideration is the picture it presents of the feelings that are prevalent, if not dominant, at the close of the Victorian era. The hopefulness of its beginning has been replaced by dismal apprehensions. The future is doubtful if not gloomy. We seem to be mere helpless atoms floating on a stream of tendency the current of which we cannot control, and borne onward to a catastrophe we cannot foresee. Everything that is dark in the time, everything that is unlovely, everything that is forbidding, is therefore brought out with added emphasis in this poem that concerns itself with the phenomena of the time. In art, in literature, and in life, we seem steadily sinking to lower levels. The love of country has been lost in love of self, and devotion to ennobling national ideas has given way to unworthy attempts to gain the favor of the multitude by pandering to its passions or by flattering its vanity. The brutal and savage instincts inherent in human nature, which we fancied we had outgrown, reappear in meaner and more cowardly forms, and seek the gratification of revenge for political wrongs by the infliction of pain upon innocent and helpless animals. A literature which proclaims itself realistic vies with the brothel in appealing to the baser passions, and adds hypocrisy to vice by the pretence that it is doing it in the interests of a purer and loftier art.

Whether these denunciatory utterances express or not the actual views of the poet does not concern the reader. It is enough for him if they depict fairly sentiments that are widely held. This they certainly do. For at the present time a great pessimistic wave is sweeping over the world, at least over that portion of it which thinks. Individuals may

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

be, and doubtless are, exempt from its influence. But even he who does not feel it in his own consciousness can hardly fail to see its existence on every side. The literature is largely one of doubt where it is not one of dread. We may deplore the prevalence of the sentiment or we may scoff at it. For the manifestation of the latter feeling there is doubtless this excuse, that to some extent it has become a mere fashion. Just as in Shakespeare's time men were sad only for wantonness, so it is not unusual now to see them pessimistic for the same reason. Still this does not vitiate the fact that the educated mind of the race is now largely disturbed everywhere by fear of the future, and is sometimes mastered by despair.

And in no one particular does this pessimistic view display itself with more force than in the sentiments about democracy which find unequivocal expression in this poem and have largely contributed to its unpopularity. It is not the opinions of men who have a selfish interest in exclusive privileges that need to be considered. Still less does the constant chatter about republican institutions of the literary Gigadibses—to use Browning's term—require to be heeded. But a certain degree of weight must be conceded to the views of those like the hero of the original poem, who have longed for the triumph of democracy, who have hailed its advance from afar, but who have learned to look upon its resistless march with varied feelings, of which confidence is not always the most prominent. Now that it is certainly coming, what is it going to bring with it? Will it be peace or a sword? This new giant, what will he do when he feels his strength in its fulness? What will he be disposed to do? It is the uncertainty that attends the answer that makes the most hopeful at times secretly apprehensive. The evils of a despotism or of an aristocracy are things we can measure definitely. They have been tried in numberless ways and under numberless conditions, and the experience of the ages shows both what they may be and what they can be. Nor in any case is relief from them hopeless. If worst come to worst, the despot can be assassinated, the aristocracy can be crushed or expelled. If men endured for long periods the tyranny of either, it was due not to the unconsciousness of their ability to overthrow as to their inability to combine. But in the case of democracy we are placing upon the throne a power which is so intangible that it cannot be successfully attacked anywhere, which is so pervasive that it operates everywhere and upon all. The experiment may turn out favorably; but no one is as yet in a position to say positively how it is going to turn out at all.

The inevitable uneasiness is, moreover, not lightened by the fact that back of the power which is surely coming to occupy the throne looms the spectre of communism with its gospel of annihilation and its propaganda of hunger, hatred, and despair. We have risen from chaos toward cosmos: are we going back from our imperfect cosmos to complete chaos? Modern civilization does not have to look for its foes, as did the ancient, in an outlying world of which it knew nothing. No thought could occur to a man of our time such as must have haunted the heart of the citizen of the later Roman Empire, of the possible perils to art, to learning, and to letters that lay hidden in the depths of mighty and unexplored forests. The whole earth has now been mapped out, and civilization knows precisely with what external dangers it is liable to meet, with what barbaric forces it has to contend. The enemies it has to dread are those of its own household. In gloomy alleys, in city slums, in hovels where wretchedness cowers, in dens where crime burrows from the light of day, lurk the foes that threaten its life. Its progress in many ways seems to lie largely at the mercy of the human vermin which it itself brings into being, and which philanthropy is careful to cherish and eager to preserve. These are the aspects that fill the thoughtful heart with foreboding. It is not fear for the future of wealth that disturbs it. Nothing fights like property, and the sordid spirit of accumulation that dwells in every breast can be safely left in the long run to hold its own against the brood of darkness that civilization breeds in her unsavory underworld. But even a short-

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

lived triumph may work incalculable havoc with the highest achievement of the race, and the demoniac frenzy of an hour may shatter irretrievably the noblest and most precious of the long results of time.

It is, of course, very possible that all the gloomy misgivings of the second Locksley Hall may turn out as baseless as the glowing anticipations of the first. As, indeed, in the earlier poem itself the confidence in the future was shaken at intervals by feelings of doubt, so in the later the doubt is relieved in turn by occasional feelings of hope. Accordingly, the children of this world, who are not troubled because they do not think, may possibly be wiser in their generation than the children of light, who stagger under the burden of prospective calamities that are never to arrive. Democracy in particular has had, in time past, a peculiar fashion, which it may repeat in time to come, of revenging itself upon its adversaries—in confounding by its course their predictions as to its conduct, and of falsifying by the event their prognostics of disaster. However these things may turn out, the second Locksley Hall must always have attached to it a special interest for the exact and vivid representation it furnishes of the feelings of the time. This, independent of literary form, would establish its claim to being one of the most memorable works of its author. But its literary form, moreover, raises it to a distinction which places it fully alongside of the similar work accomplished by him in the first vigor of manhood. There are certain characteristics belonging to the earlier poem which the later does not and cannot have. The subject itself forbids it. The literature of denunciation and gloom can never be invested with the charm that is inherent by nature in the literature of hope and aspiration. A work, in particular, that embodies the doubts and fears of a class, no matter if intellectually the highest, can never attain to the general popularity of one that gives at least the semblance of reality to the dreams of all. There are, besides, in the second poem a few passages which approach dangerously near to the prosaic. There are one or two verses in which the thought is too commonplace for the language with which it has been clothed. But when these shortcomings have been pointed out, very little is left for the devil's advocate to urge in the way of objection. All of these defects, when taken together, detract but little from the perfection of the piece as a whole. It is little to say of "Locksley Hall Sixty Years After" that English literature presents no similar instance of a work of anything like the same grade of intellectual achievement produced by a poet at the same period of life. No allowance has to be made for it on account of the age of its author. If it lack at times the gorgeousness of diction which characterized to so marked a degree the original creation it equals it in sustained power, and in energy of expression it occasionally leaves it behind. There is exhibited throughout it that same felicitous capacity of producing great effects by the use of single words or phrases. What a weight of meaning, for instance, is added to the verse, what a picture is presented to the mind by the employment of the word *flash* in the following passage instead of an ordinary verb of motion :

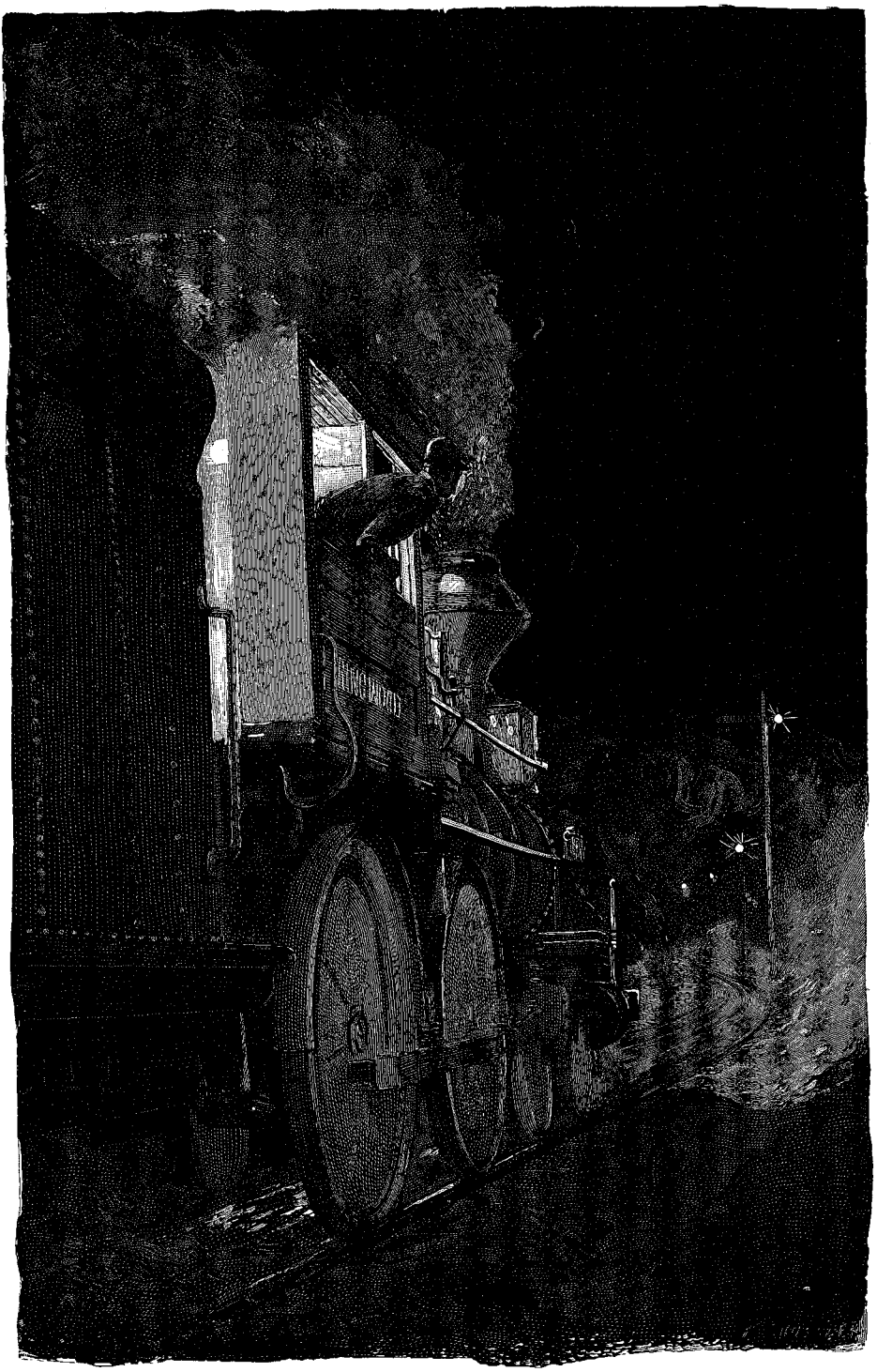
> What are men that He should heed us ? cried the king of sacred song ;
> Insects of an hour, that hourly work their brother insect wrong,
>
> While the silent Heavens roll, and Suns along their fiery way,
> All their planets whirling round them, flash a million miles a day.

Passages like this, which are scattered throughout the poem, display conspicuously the difference in workmanship between the mere man of talent and the man of genius. Nor is the philosophy of the production unworthy of its literary form. The stormy utterances that constitute the principal portion of it prepare fittingly the way for the lesson it sets out to enforce. Science has failed us, legislation has failed us, the great political changes from which so much was anticipated have proved barren of results. In what quarter are we to look for help? It is in the conduct of the man whom the hero of the earlier poem had wronged that the same hero of the later one finds the solution of the

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

problem that has perplexed his spirit. Not upon remedial legislation, good and even necessary as it may be, not upon the achievements of science, grand as they doubtless are, rests the hope for the future of the race. It is in the life of his successful rival, who strove for sixty years to help in all ways his homelier fellow-men, that he recognizes the force which is to prevent the earth from touching her earthly worst if it does not lift her to her heavenly best. Not in mighty movements which fascinate the minds of all, though in them few can directly share, but in the performance of services to those who are nigh us or dependent upon us, in the discharge of the humbler duties of life to which power is never lacking but only will, lies the secret of man's gradual regeneration and elevation. Is the lesson taught by the second Locksley Hall any less noble or any less true than that taught by the first?

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



DANGER AHEAD!

Safety in Railroad Travel, page 328.

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED